

THE NATIONAL PROVISIONER

PUBLISHED EVERY SATURDAY

(Copyright, 1904, by the Food Trade Publishing Co.)

ENTERED AT NEW YORK AT SECOND-CLASS RATES.

Vol. XXX.

New York and Chicago, March 12, 1904.

No. 11.

CORTLAND COMPANY MAY REBUILD.

The Cortland Beef Company, Cortland, N. Y., whose plant was totally destroyed by fire last week, is considering rebuilding plans, and an application has been made to the local authorities for permits. If the plans are carried out a new and extensive plant will be erected, which will far outstrip the old in capacity and effectiveness.

FOOD TEST NEARING FINISH.

The squad of United States army regulars, who have been on a scientific food diet at New Haven, Conn., under the supervision of Prof. R. H. Chittenden of Yale, will be released from their ordeal on April 1, and it is said will be sent to the St. Louis Fair as a reward. The results of the test will be announced at the food congress at the Fair.

DOLD PLANT NOT SOLD.

A denial comes from J. C. Dold, manager of the Dold Packing Company, concerning the reported sale of the Dold plant at Kansas City to the stockgrowers' organization, the Independent Packing Company. Mr. Dold is quoted as denying the sale positively, though he declined to say whether negotiations for its sale were in progress or not.

FOR A WAREHOUSE.

The plant of the Thos. J. Lipton Company at the Chicago stock yards, which was acquired last week by Armour & Company, will in all probability be utilized by its new owners simply as a warehouse. Armour & Company have no plan other than in contemplation. The Lipton buildings are located adjacent to the Armour plant, and will serve conveniently the purpose indicated.

ANOTHER "GRAFT" SCHEME FAILS.

The Kansas City municipal abattoir scheme is dead, despite the strenuous efforts of the alderman who fathered it to save it from defeat. This ambitious dispenser of political patronage had drafted a scheme for a great city slaughter and packing house, which would afford a field for no end of patronage for party workers. The excuse for the scheme was the "emancipation of the retail butchers" and a reduction in meat prices. The retailers refused to give the plan their approval, however, and after it had passed the board of aldermen it was allowed to die there.

IOWA BILL DEFEATED

The Delano bill, introduced in the Iowa legislature at the instance of the Corn Belt Meat Producers' Association of that state, to compel the railroads to give preference to movements of live stock, and to return the stockmen's passes taken away on January 1, has been indefinitely shelved by the committee to which it was referred. There

was a big delegation of stock raisers present to force the passage of the bill, but the interests in opposition were too strong. It is said, however, that a compromise will be arranged whereby the railroads will issue return passes to bona fide shippers under certain conditions. Other reforms are left to the good faith of the railroad officials.

WAITING ON THE SUPREME COURT

Financial circles, involved in the Northern Securities decision, are not the only interests watching with breathless attention these days the doings of the highest court in the land. At each convening of the court decisions in cases of momentous interest are expected, but thus far the expected has not materialized. The ruling of the Supreme Court in the oleomargarine case is daily

awaited, and the interests involved are keeping a close watch on the court. The cases were argued early in December, and three months was allowed as a reasonable time for the preparation of a decision. So it is that a ruling may be expected any day. It is said the oleomargarine interests are prepared for eventualities, no matter what stand the court takes.

GERMANY PREPARES TO CAPITULATE

At the time the German meat exclusion law was passed The National Provisioner declared that its real purpose was to use it as a basis for a more favorable commercial treaty between Germany and the United States. That this was and is true is verified from advices recently received. Competent students of German affairs now say that as soon as Germany completes her pending treaty with Austria she will vigorously push a treaty with the United States. It is predicted she will ask for a new agreement in

place of the Saratoga convention, and will demand a change in the American system of invoices. In return she will make concessions on meat imports.

This action has recently been foreshadowed by remarks in the Reichstag, and as Germany's meat situation is becoming a serious one on account of lack of supplies, her ministers are becoming anxious for a renewal of our meat imports. The German shortage may be the means of our concluding a treaty entirely favorable to us.

THE SQUIRE SITUATION

The suits brought by disgruntled stockholders in the John P. Squire Company, in the Massachusetts courts, to invalidate the transfer of control in that company are said by informed persons to be "strike" suits, pure and simple. They are instigated, it is said, by a New York attorney, who has motives for upsetting the sale. The same authority reports that the new interests are in possession of \$375,000 out of \$519,000 preferred stock of John P. Squire & Co., and of \$3,500,000 out of \$4,500,000 of the voting trust certificates representing the common stock.

Concerning the reports affecting the Squire company and other New England meat concerns and their connection with the Swift interests, Mr. E. C. Swift has made the following statement:

"There seems to be considerable misapprehension as to the relations between Swift

& Company, the North Packing & Provision Company and the J. P. Squire Company. I wish to state that Swift & Company is not interested in any way with either of these companies, does not, or never did, own a share of their stocks, or furnish them product to sell, being instead a competitor for New England business.

"With regard to J. P. Squire & Co., they are a local independent corporation, a majority interest in the stock, however, now being owned by interests who are to a greater or less extent holders of the North Packing & Provision Company. J. P. Squire & Company has absorbed the Boston Packing & Provision Company and secured as managers of their business the very efficient services of Louville V. Niles and John F. Crocker, principal owners and former managers of the Boston Packing and Provision Company."

NORTHERN
 ↑
DIRECT CURRENT
DYNAMOS MOTORS
 Bulletin No. 2230 Bulletin No. 2235
ECONOMICAL <— Especially adapted to the —> **SIMPLE**
 operation of packers' machinery
NORTHERN ELECTRICAL MFG. CO.
 Madison, Wis., U. S. A.
 Engineers Manufacturers
 ↓
STURDY

A PECULIAR TRAFFIC CONDITION

Packers, stockraisers and shippers in general will have the winter season just closing indelibly impressed upon their memories. Never in recent years has there been such a struggle to get shipments through to destination. Delays have been the rule rather than the exception, and transportation facilities over the railroads have been at the low-water mark of efficiency. The packers have been the most fortunate by reason of the excellence of their shipping department organization, but even they have suffered, and there have been times when a meat famine threatened at various points in their field of distribution. Exporters have found it difficult to get a prompt handling of their consignments from the centres to the seaboard, and the meat traffic has been generally impeded.

Raisers and shippers of livestock have been restive under the weight of inconvenience they have suffered, and their dissatisfaction has taken form in a widespread agitation against the railroads. Stockmen's organizations and livestock exchanges have adopted resolutions of censure and formulated petitions for relief. The Kansas City exchange has adopted the method of keeping and making public a record of every delayed shipment, and using this list of delinquencies in its campaign for reform. The cattlemen have appealed to the government and have introduced legislation in at least one State to compel the railroads to improve their methods in moving perishable freight. The National Livestock Association committee has had a conference with the traffic officials of the railroads, and better things have been promised.

The situation remains congested. The live-

stock agent of one of the big carrying roads was quoted last week as saying that at least 4,000 stock cars are still tied up between Chicago, New York and Boston. This official lays a great share of the blame for existing conditions on Eastern roads. He says there are at least 25,000 freight cars of other classes blocking the stock cars and increasing the congestion to a point where it is almost impossible to get hold of any kind of rolling stock.

A peculiarity of the situation, according to this authority, is the fact that northern lines to the seaboard, such as the Grand Trunk, are moving their equipment as usual, and do not appear to have suffered from the delays due to cold weather and storms complained of by the other lines. These lines run farther north, and it is considered strange that they should be open and free while those farther south complain of weather blocks.

It is suggested that the trouble with these lines is not so much the weather as it is the decreased efficiency due to recent retrenchment in operating expenses. Last fall's generally adopted policy of cutting down expenses and reducing operating forces naturally left the roads more liable to trouble when weather difficulties should appear. With fewer switchmen and trainmen and a smaller mechanical staff to repair accidents and breaks, the ability to move heavy freights has been lessened. This is said to be the cause of the unsatisfactory condition of affairs rather than the cold weather alone. In fact, it is predicted that the arrival of spring and better weather conditions will not see relief from existing freight congestion, unless other measures are adopted.

FORT WORTH AS A PACKING CENTER

Fort Worth is coming rapidly to the front as a centre of the packing house industry. With the establishment of several of the big packing interests there, stock raising interests have been stimulated to increased activity and much benefit will accrue all around. The convention of the Texas Cattle Raisers Association at Fort Worth this week reflected some of the new enthusiasm.

"Fort Worth has started the livestock world with the importance attained in the

first year the packing plants have been there," said Wellington Leavitt, head cattle buyer for Swift & Company, in a recent interview in Chicago, upon his return from a Texas trip. "But I believe that the business during the present year will more than double the business done last year. There is no telling to what proportions this market will grow. It is near the ranges, near where the best feed for fattening can be grown the cheapest, and it is close to tidewater.

"I believe that the only drawback that has heretofore handicapped this market—the scarcity of hogs—is being lessened every day. As soon as the packing plants can be assured of a permanent supply of hogs then the capacity of the plants will be enlarged. From the reports we have been receiving every farmer in the state is beginning to raise hogs. There is a pigpen to be seen at almost every farmhouse. While cattle are essential for a good market, hogs are absolutely necessary. The by-products of hogs number 137 articles, and there is a large demand for all of them.

"Every visitor who goes through the packing plants there becomes a friend for Fort Worth. They are bound to be surprised at the thoroughness of the plants. They go back and tell their neighbors how well prepared the plants there are to handle the hogs and the cattle, and forthwith these neighbors plant a few hogs. There is no danger in the world of a hog crop being overdone in Texas."

STILL SEEKING GREEN FIELDS.

The bonus packing plant schemers who are taking advantage of the so-called independent agitation to gull local business men and capitalists in various smaller cities throughout the country, made Grand Rapids, Mich., their latest field of enterprise. They led the people there to believe that millions might be made in a packinghouse enterprise, and their propositions were listened to with interest until the question of a free site and a nice, fat bonus was broached. Then there was a perceptible cooling of the atmosphere, and the schemers departed to give their victims time to think it over. At last reports they had not returned.

FARMERS FELL OUT.

The gigantic scheme for the formation of a Farmers' National Exchange with a capital of \$50,000,000, to sell all farm products co-operatively, including live stock and meats, has gone a-glimmering. The convention held in Omaha last week to launch the movement broke up in a row, and the farmers who comprised the previously successful co-operative grain association refused to have anything to do with the schemers who were backing the fifty million dollar plan. One of the features of this enterprise was the building of co-operative packing houses for the handling of all meats and meat products.

LOOKING FOR MORE TROUBLE

Mindful of the approach of a Congressional election, members of the House of Representatives are beginning to consider ways and means of making themselves solid for another term. Representative Martin, of South Dakota, is the first to fix his fences. Mr. Martin has observed the disgruntled state of mind of stock raisers in his district who have, through fear of high-priced corn, rushed their half-fed cattle to market, thereby contributing to the demoralization of prices and the lessening of their own profits. He has heard their wails against the packers, who are made to bear the blame for "all the ills that flesh is heir to," and they have given him his cue. With celerity and a show of righteous earnestness that will doubtless bring him many votes in his district next November, he has rummaged the political garret for the much-worn "beef trust" bugaboo, which he has set up in the halls of Congress as a fair target.

This being a season of investigation—including the investigation of the connection of the Congressmen themselves with the post office scandals—Mr. Martin had no trouble in securing the adoption of a resolution directing the Secretary of Commerce and Labor to look into the whys and wherefores of the alleged low prices of beef cattle and the high price of dressed meat.

Nobody Objects to Investigation.

Up to date there has been no apparent opposition on the part of anybody to the analysis of the present state of the live stock and beef markets. But unanimity did not suit the investigators, and they have been making a great deal of noise and stirring up lots of dust in their efforts to create the illusion of a conflict in which they could pose as the "peoples' defenders." The Secretary of Commerce and Labor has expressed his willingness to proceed with the investigation just as soon as Congress gives him the funds to do so. The Attorney General, who has hitherto had charge of the so-called "beef trust" prosecutions, has offered to act on any evidence which might be presented to him. But thus far the agitation has achieved but one result—wind.

Congressman Martin's resolution was introduced last week and referred to the proper committee. After its wording had been made a little less offensive it was adopted by the House on Monday without opposition. The resolution reads as follows:

"Resolved, That the Secretary of Commerce and Labor be and he is hereby requested to investigate the causes of the low prices of beef cattle in the United States since July 1, 1903, and the alleged unusually large margins between the prices of beef cattle and the selling prices of fresh beef, and whether the said conditions have resulted in whole or in part from any contract, combination in the form of trust or otherwise, or conspiracy in restraint of commerce among the several states and territories or with foreign countries; also whether the said prices have been manipulated in whole or in part by any corporation, joint stock company or corporate combination engaged in commerce among the several states, or with foreign nations; and if so, to investigate the organization, capitalization, profits, conduct and management of the business of such corporations, companies and corporate combinations, and to make early report of his findings according to law."

Secretary Cortelyou has informed Mr. Martin that he is ready to make the required investigation as soon as the necessary funds shall be provided. To carry out the requirements, it will be necessary to put a big force of special agents in the field, as it will amount to a thorough investigation of the entire packing house industry and a searching study of the whole problem of meat production, from the cattle pasture to the retail butcher's block.

Where Is the Evidence?

In a statement to the press at the time Congressman Martin's resolution was under discussion, Attorney General Knox said that if any one would furnish evidence to the department or to any of the United States district attorneys, the department would move instantly to bring the offenders into court. If any such violations of law are taking place the Department of Justice would be glad to have the information on which to proceed. The department will not wait for an investigation by the Department of Commerce and Labor, such as is proposed by the resolution. No investigation or waste of time will be necessary if only the evidence is furnished the department or any of its officials.

As yet no such evidence has been offered the department. The cattlemen of the West who complain that they are unable to get a fair price for their cattle, and who assert that in the stock markets there is collusion between the packers to keep down the price, have furnished no evidence supporting their charges to the department or to any of the United States district attorneys. To the Attorney General and his assistants it seems strange, if such a condition of affairs exists, no one has offered the proof. The officers of the Department of Justice would be glad to have an investigation by the Department of Commerce and Labor, or by any one else. They encourage, and do not discourage the proposed investigation. But they are anxious to know why the men who claim to know the facts do not without delay place the department in possession of them, without waiting the slow movements of an investigation.

United States District Attorney Bethea, of Chicago, who has direct control of any local action which might be brought against the packers, said on Monday: "I am ready to receive any evidence that the packers are in a conspiracy to depress the selling price of cattle and advance the price of the dressed product. If the evidence be sound, the offenders can be brought into court without delay. So far no one has brought in the evidence. All that is in is vague rumors."

Fight Shy of the Facts.

Have the cattle raisers of the West, or meat consumers anywhere in the country, any actual evidence that the packers are in a combination to depress the selling price of cattle or to put up the price of dressed beef? If so, the Department of Justice, as well as the Department of Commerce and Labor, would like to have them come forward with that evidence. In this connection it might be added that no one has yet ventured to combat the figures set forth in THE NATIONAL PROVISIONER's letter to Secretary of Agriculture

Wilson, made public several weeks ago, which showed conclusively that at present prices of live cattle and dressed beef the packers must sell the dressed product at an actual loss, relying upon the by-products for the profits of their business. Secretary Wilson admitted that he had been misquoted by the "yellow" press on the subject of the alleged discrepancy between cattle and meat prices, but beyond that prompt refutation no one has cared to tackle the logic of actual facts as set forth by this paper.

GOVERNMENT JANUARY STATISTICS.

The monthly statement of the internal commerce of the United States, issued by the Department of Commerce and Labor through its Bureau of Statistics, has just been made public. Thirty-eight car-service associations report 2,135,981 cars handled during January, 1904, compared with 2,372,461 cars in January, 1903.

At five western live-stock markets a total of 3,028,350 head of stock was received in January, 1904, compared with 2,974,029 head last year and 2,758,793 head in the preceding year. Of this total 1,540,711 head were marketed at Chicago, 457,604 head at Kansas City, 417,216 head at Omaha, 374,554 head at St. Louis and 238,265 head at St. Joseph.

LIVESTOCK'S HARD WINTER.

Livestock have had a hard winter as a general thing. It has been necessary in the colder latitudes to keep the cattle, hogs and sheep under cover. Any other course would have proven an expensive risk. The winter all through the country has been the coldest and the most severe stock owners have experienced in years. The result will be that cattle, particularly, will enter the spring in poorer condition than for a decade. The general healthy condition of stock, however, is shown by the fact that, severe as the winter has been, they have not only resisted cold and disease, but have shown no signs of developing illnesses or weaknesses which are the symptoms of constitutional disorders.

PUSHING THE INDEPENDENT SCHEME.

The campaign for the establishment of a cattlemen's packing plant somewhere in the West or Southwest is still as much in the air as ever, but the agitation is being kept alive among the cattlemen by the parties interested. The stock raisers of twenty-seven Kansas counties have been called to meet in convention at Dodge City on March 31, to talk up the scheme for an independent plant in Kansas City, and it is hoped to get some material support from Southwest Kansas by this plan.

CATTLE IMPORTS FROM MEXICO.

Reports show that there has been a considerable falling off in the imports of cattle from Mexico to the United States during the past year. Indeed, the movement in the opposite direction, especially of breeding cattle, has been heavy. The number of head of cattle brought from Mexico in 1903 was 28,787, as compared with 63,560 in 1902. The decrease has been steady for six years, the importations having dwindled steadily from the high mark of 133,775 in 1898.

WHAT MEAT PRESERVATIVES MEAN

Should progress cease to exert its beneficial influence in the onward march of civilization; should mankind, blinded by prejudice and ill-directed superstition and ignorance, suddenly abandon modern improvements, discovered and exploited through an incalculable amount of scientific investigations; should greed and personal gain of a few to the suffering of the masses be allowed to curtail thoroughly tested and approved methods and processes, we might well stop to think with alarm of what would happen. What would happen, for instance, should preservatives be taken away from us? It is scarcely realizable what the far-reaching results would be; but one immediate consequence must be patent to even the casual observer—that the great majority of the people would be forced to considerably curtail their meat and vegetable bill of fare, and restrict the roast and ham to occasional days, as of yore.

When large communities were rare and far between, when our forefathers each raised his provisions on his own premises, when certain products were limited to confined seasons and localities, and our modern civilization and transportation facilities unknown, even then were preservatives a *sin qua non*. Salt, salt-petre, vinegar and sugar were the substances employed; just as was the stage coach for travel over rocky roads, if such a comparison be permitted, because people knew no better way. Would the pseudo-reformer now prefer the latter method of locomotion to that of the steam engine over smooth and noiseless rails? Could he then, logically, insist on using antiquated methods of preservation when more recent and serviceable methods are at our command? The days of antiquated coaches are irreparably lost to posterity, as are also the obsolete methods of preservation; and sorrow to the cynical reformer who would try to reverse the march of progress.

Borax vs. Salt.

As a single instance may be cited the vastly superior qualities of borax and boric acid over common salt—which fact is knowingly miscredited by only too many. When the poor, over-worked sailors of by-gone years found that salt meat was the only available meat for them, for months and even years at times, they saw the hospital yawning for them. Scurvy is recognized as the result of an extended salt meat diet, traceable directly to the salt which was used as the preservative. How much better does the sailor of to-day fare, with his clean and appetizing meats and vegetables, preserved with modern and improved preservatives, such as borax or boric acid. The danger of that ugly if not serious malady, scurvy, is entirely eliminated by the use of fresh or borax-preserved meats. That common salt, although sanctioned by long-continued use and habit, is a more dangerous substance than any of the borates has been clearly shown.

Considered from a purely scientific standpoint, this could not be otherwise. Salt is a muriate and borax is a borate of the very same element—sodium. It is further known that muriatic acid is vastly more active,

powerful and tissue-destroying in comparison with the mild and extremely weak boric acid, and also more rapidly absorbed by the system on account of its great solubility. These should be facts sufficiently convincing to the most critical observer—without the further evidence that scurvy has ceased to be a menace to the seafaring tribe—that borax is unquestionably more harmless than salt.

Will Not Be Convinced.

What would happen to the men of our armies and navies stationed in southern latitudes were we deprived of such a harmless preservative? It is rather surprising that the occasion for an argument on the subject of preservation should arise at this late date, but the pure food cranks, whose only distinction is that they obstinately refuse to learn from the experience of others, are not yet convinced.

Let us turn our attention now to the conditions which would obtain right here in our own country, should such a calamity really occur. Shall the results of modern investigation be cast aside and must we return to the ways of living of generations ago? The very prohibition of the use of modern preservatives would, surely, have no other result. Who could think of three meals a day with meat at each? Let us, therefore, coolly consider what the results of such action would be.

Prepared meats would, of necessity, be very expensive and vastly inferior in quality without a preservative, for the reasons that the keeping quality would be impaired and great loss of meat occur on that account during storage. Prices would soar as the supply fell below the demand. With such conditions how utterly depleted would the family larder grow. The question suggests itself, how the average man, woman or child of to-day would like the monotony of the salt and dried meat of fifty-odd years ago, with no variation in sight? Enterprise, capital and science have combined to produce a state of affairs to-day when everybody can not only afford a substantial meat meal three times per day, but that also a large variety of meats is available at a fair price, due to proper preservation and economic production.

Possibilities With Preservatives.

What would become of the traveler on the big ocean liner? Would he also have to be satisfied with an exclusive salt diet? When one considers the enormous amounts and the excellent variety of the food supply spread on the tables of these liners during a voyage, must not any argument against borates as a preservative fall flat at the mere mention of it? That such a variety can be possible is due solely to the use of preservatives other than salt, as it scarcely deserves mention to state that by far the majority of the various foods could not possibly be preserved with salt for gastronomic and other considerations. Without the use, then, of the modern preservatives we would have to return to methods of mediaeval ages, or grasp at the only remaining alternative, and do without fresh food supplies; especially those which give men muscle, energy and strength, and produce the happy equilibrium so neces-

sary for health and well being—that is, meat.

Salt in large quantities as a preservative should be discouraged, since its purpose lies rather in the nature of a condiment, owing to its quality of being converted into muriatic acid in contact with the gastric juices; the acid in turn reacting favorably, together with the pepsin, to aid digestion.

Boric acid has, to a large degree, supplanted iodoform as a dressing for wounds after the most delicate and difficult surgical operations, where it comes in direct contact with the severed blood vessels, and is rapidly carried through the entire system. That drugs thus administered act most rapidly and powerfully has led to the administration of medicines by means of the hypodermic syringe, when the intended action is most pronounced. That the shock to the patient from a dangerous operation leaves him in an extremely low and precarious condition is equally well recognized and understood. Why, then, should the surgeon use such large quantities of boric acid on such delicate wounds and under such trying circumstances, if he were not fully convinced of the entirely harmless nature of the substance employed?

A Guarantee of Health.

The very small amount which is required for meat preservation fades out of sight in comparison with the quantities used in surgery, where its application is made not for any physiological effects, but to keep the wound clean and free from pathogenic germs. And this is exactly the reason why the borates are and should be used as meat preservatives in preference to many others, such as salt, etc. The presence of boric acid in meat and other food products is in itself a guarantee that such products are fresh and healthy, for the well known reason that meat once deteriorated can in no way be restored to its original freshness—opinions of overzealous ignorants to the contrary notwithstanding.

The perfect preservation of any substance for use as food implies the retention of its full nutritive power and digestibility, with its natural odor and color unimpaired, for such a length of time as may be required. While such dry food products as the cereals keep quite well without a special treatment, most soft fruits and vegetables and all varieties of animal food require artificial preservation. Some fruits may only need a thorough drying; other products may be preserved by the exclusion of air or by refrigeration and sterilization; but no one would venture to claim that any one process would suffice for all food products alike. Preservatives must be used to preserve animal food, as refrigeration alone is not sufficient, in view of the exposure of the meat to the air while being transferred from one refrigerating medium to another. Boric acid and the borates fulfill all the requirements which may possibly be expected of a harmless, yet active, preservative.

Preservatives prohibited, we must naturally adopt the retrogressive movement toward the dry and salt meat period of long ago, and leave it to a few to face the prohibitive prices of fresh and smoked meat as best they can, or to do their own slaughtering at home.

JAPAN'S WAR FOOD PROBLEM

As the Russo-Japanese war situation is settling down, the problem of feeding the army of the Mikado comes to the front for consideration. The movement of troops thus far and the apparent plan of campaign indicate a war of several months' duration, with very large armies in the field. It is believed that Japan will eventually place 500,000 men in the field. That will mean the need and consumption of an immense quantity of commissary supplies. How will Japan feed her soldiers? A review of Japan's agricultural condition at this time may suggest the answer, as it will measurably solve the further query, can she feed them from her home supplies?

Japan is not a country with a remarkably large export trade. She exports about 50,000,000 pounds of tea annually. Art goods, notions, silks and potteryware form the chief items of the export list. Japan exports very little food stuffs, some dried fish and rice, which go mostly to China and nearby ports. The inference from this, therefore, is that the Japanese have need of their output for their own use at home, for it must be admitted that the Japs can raise rice and cure fish cheaper than any other country, barring the Chinese, and therefore are not barred from foreign markets by tariffs.

Rice and dried fish are the chief items of diet in the Kingdom of the Rising Sun. There are comparatively few domestic animals of the edible species in that country. The Japanese until very recent years have eaten very little animal flesh. Cows, hogs and sheep would, therefore, find little use. There are only 165,000 square miles of territory in the country. The 42,000,000 busy people there need every inch of this, and there is no room for flocks and herds of any size or consequence. This is especially so when it is remembered that the country is very mountainous. The interior chains extend from one extremity of the kingdom to the other, and level country is scarce. The longitudinal mountain ranges have rich mineral and coal mines, which are well developed.

The Japanese Diet.

The soil of Japan, however, is rich and productive, and the climatic conditions favorable to the plentiful growth of rice and grain. The diet becomes a natural outgrowth of this food condition. It is an adjustment of the human stomach and of the human constitution to its surroundings. This is why the Jap has so often been referred to as the athletic, or the human rice stalk.

The characteristics of the soil, climate and topography of Japan, more than anything else, made them a people inured largely to a rice and fish diet. Fruits enter into the menu to a considerable extent. So do vegetables. Saké is made in great quantities. The Japanese has a sea-weed diet, which is much relished. It is called kombu. Other vegetable products found upon his table are beche-de-mer and "sea ear," a muscular vegetable which clings to the rocks beneath the surface of the water. He is also fond of tokoroten, a seaweed. The women make perilous dives for the "sea ear" and are noted for their daring in this respect. In fact the women are the more important factor in the agriculture and fish-drying industries of Japan. These "Ama," as they are

called, are found in thousands on the coast of Oshiu and in the great fishing province of Hokkaido.

It is this fish and seaweed diet which, with rice and fruit, makes the chief food of the people of Japan. It is this diet which might be expected to sustain the Japanese soldiers during the present conflict with Russia. While Japan has a fund of financial resource for any purpose or any emergency,—the war hoard of ages—the country has not enough of reserve food to maintain a large army at the front for a long time at the wasteful rate which characterizes the loss or consumption of rations in the camp or on the march. The steady increase of population in Japan has been felt by the food-producing industries. This fact alone has caused a change in the national appetite in some provinces since the opening of the country to foreign commerce. The intrusion of meat upon the table there has become more and more marked within the last few years. There is the inception of refrigeration.

Our Exports to Japan.

Our exports of provisions to Japan during 1902 and 1903 were as follows: Canned beef, 1902, 28,175 lbs.; 1903, 48,463 lbs.; other beef products, exports very small, as the whole of Asia and Oceania together only took 1,481,848 lbs. in 1902 and 2,604,000 lbs. last year. The same is true of ham (1902, 230,016 lbs.; 1903, 240,000 lbs.), bacon (1902, 156,000 lbs.; 1903, 140,500 lbs.) and pork of all kinds (1902, 610,000 lbs.; 1903, 707,000 lbs.). Just how much of this went to Japan alone it is not easy to say at this time. Since the beginning of hostilities with Russia, Japan has ordered millions of pounds of salt pork, mess pork, barreled beef and canned meats in this country, thereby admitting the fact that the army ration must be largely augmented, and that by purchasing a meat component elsewhere, fish and rice solely not being sufficient to sustain the Japanese body during the harder service of campaigning.

There is another reason for this. The food harvests of the country are carefully gathered and stored for use until the next harvest comes around. The shipment of unusual quantities of this needed national sustenance out of the country will seriously disturb its domestic polity. Japan will, as much as possible, buy her excess of supplies elsewhere. The rice of China will be on the ground and available. So will the fish and other products of the Mongolian in Asia. The meat will be looked up in friendly America, because it is the best and the cheapest of the cured kind. If the Japanese retain control of the seas the United States will be on an open waterway, and any food shipments will safely land. The opening of the campaign in the spring should bring large orders for canned and cured American meats. Salt and cured pork seem to have the minimum of evil effect upon the soldiers in the field.

Another good omen for the American meat trade in this connection is that the Japanese who come to this country take to and like our meat diet. They do not seem to feel any ill effects from it while here. There is no reason to feel that they will be adversely affected by it over there. These phases of

the question have been considered by the officials of that country. In fact, the detail has been gone into so carefully that a compound ration has been worked out and the formula of it submitted to certain packers in this country, with the view of having that kind of stuff tinned for the government. The Jap does not take to freshly killed meat, so he will not attempt to travel cattle on the march. He will require "ready" stuff and looks to this country to supply it to him.

OUR COMMERCE IN THE WAR BELT.

"Commercial Japan in 1904," "Commercial Russia in 1904," "Commercial Korea in 1904," and "Commercial China in 1904" are the titles of monographs just prepared by the Department of Commerce and Labor through its Bureau of Statistics. These monographs, which discuss commercial and other conditions in the countries in question, are now in the hands of the printers and will be published as a part of the monthly summary of commerce and finance, a portion in the issue to be made within a few days, and the remainder in the issue at the close of the present month. They discuss commerce and commercial conditions in each of the countries in question, not only at the present time, but the history of their commerce, their trade relations with the various parts of the world and with each other, the total value of their present commerce compared with that of earlier years, their trade with the United States, with other leading countries of the world, and with each other. Many other important facts regarding conditions in those countries are also discussed, such as railways, telegraphs, routes of communication, manufacturing industries, the class of merchandise imported, and the class of merchandise exported.

The total commerce of the territory fronting upon and immediately adjacent to the scene of present hostilities aggregates, in round terms, about \$600,000,000, of which considerably more than one-half is imports. Japan's commerce is about equally divided between imports and exports, but in the case of China and Asiatic Russia imports greatly exceed exports, and this is also true of Hong Kong, which passes most of its imports on into China and draws from China most of the articles which become its exports. Probably three-fifths of the total commerce of the countries in question, taken as a whole, is in the form of imports, and the United States is year by year supplying a larger share of those imports of the countries in question and gaining upon other countries in the relative share which it supplies thereof.

NOT A MODERN BUTTER PRODUCT.

The press bureau of the St. Louis World's Fair is responsible for the information that a San Diego, Cal., woman will exhibit at the fair a jar of butter made in 1858. It is said this butter was placed in a spring house in that year, and disappeared in the quicksand, from which it was recently recovered. Unlike much of the modern dairyman's product, it was found to be in good condition, and has been placed in cold storage awaiting the opening of the exposition. It should be an object of interest and wonder to the butter people.

THE HOG INDUSTRY

The United States Department of Agriculture, through its Bureau of Animal Industry, has just issued an exhaustive treatise on "The Hog Industry," prepared by George M. Rommel, B. S. A., the department expert in animal husbandry. The treatise deals with the selection, feeding and management of hogs, details recent American experimental work, and gives some extended statistics with relation to hog production and the trade features.

It is a very comprehensive publication, covering every phase of the subject, and will be useful to those connected in any way with the hog industry. Abstracts of this bulletin will be reproduced in The National Provisioner for the benefit of its readers, those portions relating to breeding and feeding naturally receiving less attention than that having to do with meat production and the trade phases of the work. In discussing selection, feeding and management, the author says, in part:

Selection, Feeding and Management.

The hog has always occupied an important place in the animal husbandry of the United States. Unlike the supply of breeds of other kinds of livestock, the main dependence of American farmers for hogs has been placed upon breeds that have been developed on American soil. With a large native stock at hand, by selecting and feeding, blending strains and molding forms, American farmers may be said to have done for hogs what English farmers have done for the breeds of beef cattle and mutton sheep. Five distinct breeds have originated within that section of the country where corn is notably a feature in farming, viz., the Chester White in Pennsylvania, the Duroc Jersey in New Jersey and New York, the Poland China in Ohio and Illinois, the Victoria in New York and Indiana, and the Cheshire in New York. From the localities of their origin these breeds have been gradually disseminated over the entire country, the Poland China and Duroc Jersey having perhaps the widest distribution.

Coincident with the development of native breeds, the leading English breeds, particularly the Berkshire, have come into more or less popularity. The Berkshire has here the largest representation of foreign breeds, and are very nearly, if not quite, as generally distributed as the Poland China. With it have come the Essex (called Small Black, or Suffolk, in England), the Large, Medium and Small Yorkshire (generally called Large White, Middle White and Small White in England) and the Tamworth. A strain of white pigs known as Suffolks is somewhat general in this country, but good authorities consider it merely the Middle Yorkshire under another name. The real Suffolk pig is our Essex, in whose development Lord Western and Fisher Hobbs had so strong an influence.

Conditions Suitable for Hog Raising.

The climate and soil which will best favor the production of any kind of livestock are those in which the same kind of stock is found wild. In his native state the hog frequents those localities where vegetation

is abundant if not luxuriant. Owing to these requirements there are few hogs in the semiarid States of the West, and in that section hog raising is coincident with irrigation and alfalfa growing.

The first place in hog raising in the United States is easily with the corn-growing sections, and here corn is the first grain thought of when the fattening of animals, especially hogs, is mentioned. It is, however, fallacious to argue that hog feeding will not give profitable returns outside of the corn belt. The corn belt has wonderful advantages for economical pork production, but it also has its disadvantages, one of which is the effect on fecundity of feeding too much corn to breeding stock. Any locality that will grow clover of any species, that is favorable to the production of alfalfa, peas or beans, where grains are readily grown—not only corn, but barley, wheat, oats or rye—will be a favorable situation for the successful production of pork.

The few States comprising the corn belt are in reality the source of supply for a great amount of the meat product, especially hams and bacon, that is consumed in other portions of the country. Yet the advantages of many of these corn-belt States are little, if at all, superior to those outside of that district. The South has an abundance of vegetation. Cowpeas, velvet beans and peanuts are leguminous crops that are peculiar to that section. Corn grows readily in all parts of the South, and in the subtropical portions the experience of feeders with cassava seems to indicate that it has considerable value for pork production. In the extreme West the alfalfa of the irrigated valleys and the clover of the coast districts give a splendid foundation for successful pork production. In most of these regions there is an abundance of small grain, particularly barley, that may often be fed economically, while in some localities corn is a successful crop.

Barley is of so much interest to the experimenter, and its use is of so great importance in the production of prime pork, that it demands more than a passing notice. This grain has not been relied upon to a great extent in America as the principal part of a hog-fattening ration, but the practice of Danish farmers and the results of experiments can very well be studied with profit by American feeders. The Danish bacon, which figures so prominently in the English markets, is produced mainly with barley and dairy by-products.

The condition of the meat trade at present indicates that a strong market is assured for a very considerable time to come. The statistics presented herein show generally an increased trade both at home and abroad. The domestic consumption of all kinds of meats seems to be increasing, although the per capita amount cannot be shown with accuracy. There is little reason to fear that the further development of the pork-producing interests of the United States will soon result in overproduction.

Profitableness of Hog Raising.

The first feature of hog raising that appeals to farmers is the fecundity of the sows.

No other meat-producing domestic animal, after poultry, is capable of producing so large a number of young in a year. The size of litters varies with breeds and with location and feed. One of the effects of high corn feeding on breeding stock is the lessening of prepotency and fecundity. When the conditions of forage furnish a more or less varied diet, and consequently a better balanced ration, high fecundity may be expected. Free access to pasture will therefore always be a good practice with breeding sows. In addition to this, the number of hogs may almost be doubled by breeding the sows so as to produce two litters a year. The practice demands considerably more care on the part of the breeder than when breeding but once a year, and it should not be attempted unless the needed attention can be given at farrowing.

Lawes and Gilbert were the first investigators to make accurate determinations of the relative economy of meat production from the various domestic animals. The summary of their studies on this subject is as follows:

(1) Fattening oxen, fed liberally upon good food, composed of a moderate proportion of cake and corn, some hay or straw chaff, with roots or other succulent food, and well managed, will on the average consume from 12 to 13 pounds of the dry substance of such mixed food per 100 pounds live weight per week, and should give 1 pound of increase for 12 to 13 pounds of dry substance so consumed. Sheep fattening under somewhat similar circumstances, but with a less proportion of hay and straw, will consume about 15 pounds of the dry substance of the mixed foods per 100 pounds live weight per week, and should yield, over a considerable period of time, 1 part of increase in live weight for about 9 parts of the dry substance of their food. If the food be of good quality, oxen and sheep may give a maximum amount of increase for a given amount of total dry substance of food, even provided the latter contain as much as 5 parts of total non-nitrogenous to 1 of nitrogenous compound.

(2) Pigs fed liberally upon foods composed chiefly of corn will consume from 26 to 30 pounds per 100 pounds live weight per week of the dry substance of such food. They should yield 1 part of increase in live weight for 4 to 5 parts of the dry substance of the food. They may give a maximum amount of increase for a given amount of dry substance of such food if it contain as much as 5 or even 6 parts of total non-nitrogenous to 1 of nitrogenous compounds.

These results have been corroborated repeatedly by American experimenters.

In their dressed weight hogs show less variation than cattle and about the same as sheep. The range between young pigs or poorly fattened animals and mature, finished hogs will be about 8 per cent.—approximately 74 to 82 per cent. of the live weight; with cattle the range is at least 15 per cent., between 55 per cent. in the lowest returns of ordinary market animals and the high records of 70 per cent. and over with stock-show winners. Sheep will vary approximately, depending on the age and condition, from 48 to 60 per cent.

(Continued Next Week.)

AUSTRALIAN MEAT SITUATION.

Considering the times we have been passing through in Australia, it is wonderful that during 1903 there should have been any meat at all to export, and taking everything into account the results are not so bad as might be expected, says the "Pastoralists Review," in discussing the meat situation in that country.

From New South Wales the export of mutton was 274,382 carcasses (of which about 150,000 went to South Africa), against 427,100 in the previous year, and 13,271 lambs (half of which went to South Africa), against 20,818 in 1902. In beef New South Wales only shipped 7,920 quarters, against 10,433 in 1902, nearly all this being sent to South Africa. New South Wales, however, imported some frozen meat from Queensland and New Zealand during the year for domestic consumption. In preserved meats there has also been a large falling off in the export.

Queensland has surprised a good many people in her shipments of beef, about 330,000 quarters, of which about 240,000 quarters were for South Africa. Directly the stock routes from the Gulf country to the East Coast were opened up a large number of fat cattle were available for treatment, and these proved to amount to about 50,000 head. Victoria and South Australia both show a small increase on 1902 in their lamb shipments, but Victoria shows a decrease in mutton and South Australia an increase. However, the totals are small, barely 200,000 carcasses from both states.

The quality and condition of nearly all the stock in Australia at the present time is first class, and with a year or two of really good seasons the country should again be a factor on the London meat market.

It is a difficult matter to forecast the probable amount of meat that will be available for export during the coming year. Prices of cattle will have to come down considerably before there is much done in Queensland for export, values being at present much beyond shippers' limits. Owing to the increase of freezing accommodation, large shipments are expected from Argentina this year, which in all probability will keep prices in London and South Africa down. As to quantities available, these are yet rather difficult to arrive at. The high price of both fat and store cattle both in New South Wales and South Australia will attract most of the cattle from the back Queensland country, and this will certainly have an effect on the number available for shipment. In New South Wales fat cattle are so scarce and stores are so dear that there will be very little, if any, surplus available.

In regard to mutton shipment, the position is not much different—fat wethers are now worth in almost any part of Australia from 4s. to 5s. more than they were at this time last year, and with any quantity of feed available there will be no rushing sheep into the market; so that in all probability we shall only see sufficient supplies coming forward to keep pace with local demands. Prices will therefore most likely be maintained at levels at which shippers can do very little business until the next crop of lambs are available for restocking. Victoria and South Australia should have a full supply of lambs to export next season, every available ewe

being used for breeding purposes, but we expect no great supplies of mutton.

We do not expect to see New Zealand increase her 1903 figures next year, as the census showed a very serious falling off of 1½ millions in the number of sheep in the country, and probably the price will not be so tempting as it has been. Everything points then to a small shipment both of beef and mutton, unless local prices are reduced; there is, so far as can be seen, not much chance of this happening until late in the year.

A NEW ALLY.

"Montana Bill," representing the "Cowboy Associations of the West," is in the East engaging stores for the purpose of opening retail markets for the sale of meats. Last week he engaged eight places of business in Atlantic City, frightened the staff of the Atlantic City *Daily Press* nearly to death, and departed without doing further damage. He announced that there were 28 of his fellow-punchers with him on this invasion of the East, and that they represented sixteen different ranches, which would supply the stores with meat. Such small items as refrigeration, transportation, inspection, etc., he did not consider of

sufficient importance to explain. This new ally of the bonus packing plant "grafters" and other envious opponents of the packinghouse industry is indeed one to fear. The packers might as well surrender to "Montana Bill" at once.

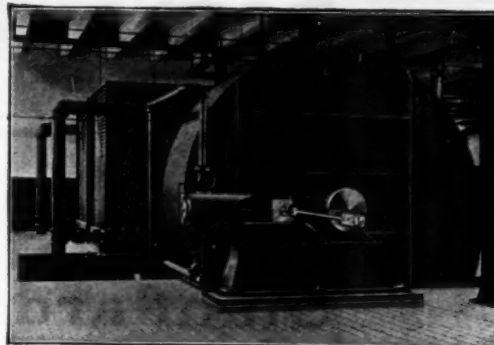
EXPORTS FROM BOSTON.

During the month of February export shipments from the port of Boston amounted to 10,682 cattle, 12,679 sheep and 49,481 quarters of beef. Though not so large an aggregate as that for January, owing to lack of vessels, this breaks all February records. Reports indicate that the most of the shipments went to Liverpool and London, with Manchester, Antwerp and Glasgow following in the order named.

HOUSTON PLANT NOT BURNED.

The destruction by fire of a small branch plant of the Houston, Tex., Packing Co., at Sour Lake, Tex., led to the report that the company's big plant at Houston had been destroyed. The Sour Lake loss was not a large one and will soon be repaired by the erection of a new fireproof structure.

STURTEVANT



**Fans, Blowers, Engines, Motors,
Generating Sets, Exhaust Heads,
Mechanical Draft Apparatus, Forges,
Heating, Ventilating and Drying
Apparatus, Industrial Equipments.**

B. F. STURTEVANT CO.

NEW YORK

BOSTON, MASSACHUSETTS
PHILADELPHIA

CHICAGO

LONDON 351

SEE PAGE 48 FOR**Wanted and For Sale Advertisements**

Semi-Annual BOOK SALE

Standard Works at
REDUCED PRICES

FOR THIS SALE ONLY

*To those who would know all about their
trade these books are invaluable.*

"Manufacture of Sausages," \$2.00,
Now, \$1.50.

"Pork Packers' Handbook and Directory," \$10.00,
Now, \$4.00.

"Manufacture of Glue and Gelatine,"
\$10.00,
Now, \$5.00.

"Manufacture of Varnish and Linseed
Oil," \$5.00,
Now, \$1.50.

"Manufacture of Cotton Seed Oil," \$3.00,
Now, \$1.75.

"Scientific Encyclopedia," \$5.00,
Now, \$4.00.

"Secrets of Canning," \$5.00,
Now, \$3.00.

"Douglas's Encyclopedia." Data and
recipes for packers, sausage makers,
glue makers, etc.
\$2.50

THE NATIONAL PROVISIONER

Floor A, Produce Exchange

New York City

TRADE GLEANINGS

Brewerton, Ala., will have a cotton gin and cottonseed oil mill, to be built by a company composed of local capitalists.

The plant of Swift & Co. in Leon, Ia., has been destroyed by fire with a loss of \$15,000.

Horn & Company's packing plant in Marysville, O., has been burned. Loss \$8,500.

Former United States Senator James Smith, Jr., who is the head of the leather manufacturing company of J. H. Halsey & Smith, of Newark, N. J., has secured control of the T. P. Howell & Co. plant in that city by purchase of the control of the entire stock of the Howell Company, amounting to \$500,000. Mr. Smith says that the business will be run independently and will have no connection with that of the Halsey & Smith Company. Both make patent, enameled and carriage leather.

The Southern Canning Company, Bowling Green, Ky., capital \$25,000, has been incorporated.

Elnora Packing Company, Elnora, Ind.; capital \$10,000. Ransom Pope, T. J. Payne and others, incorporators.

Southern Soap Company, Birmingham, Ala.; capital \$10,000. J. S. Mabrey, W. G. Bennett and others, incorporators.

G. H. Hammond Company, Syracuse, N. Y., will greatly enlarge its building and increase the capacity fifty per cent.

Work has been commenced in the erection of the \$175,000 oil mill, fertilizer and ice plant in Newton, Miss.

Havana Canning Company, Havana, Cuba; capital \$100,000. Orlando Ducker, E. P. Ducker and others, incorporators. The papers were filed through the Corporation Trust Company of New Jersey.

Hide and tallow factory of Berkeimer Bros., Telford, Pa., has been burned. Loss \$5,000.

Fox River Packing Company, Elgin, Ill.; capital \$75,000. A. F. Ausell, Carl Buehler and others, incorporators.

Wrothing & Alger, in Hillsdale, Mich., lost \$2,000 by a fire in their plant.

Federal Soap Company has removed its plant from Joliet to Chicago, Ill.

John Ruprecht Packing Company has bought land in Peru, Ill., and will build a plant.

M. L. Riggs, Dodgeville, Wis., is negotiating with parties in Stoughton, Wis., for the establishment of a canning factory to cost \$15,000.

Chalfonte, Pa., will have a cannery to cost \$12,000, furnished by local capitalists.

Plymouth Canning & Packing Company, Plymouth, Ind.; capital \$10,000. A. E. Wise, Clarence Stephens and others, incorporators.

Nelson Morris & Co., Chicago, will issue specifications this week for the complete packing house machinery equipment for their \$2,000,000 Kansas City plant.

VARIETY MANUFACTURING CO.

Manufacturers of

Gross Counter-Balance Elevator Doors, Gross Horizontal Folding Doors, Fire Doors of all descriptions, Blackman Exhaust Fans.

77-83 W. Lake Street, CHICAGO, ILL.

WM. GRAVER TANK WORKS

Manufacturers and Builders of

Steel Storage and Car Tanks

Main Office 505-506 Plymouth Bldg., CHICAGO

'PHONE, HARRISON 681

Miller & Hart, Chicago, will build a \$150,000 addition to their packing house.

The National Provision Company, Thirty-ninth street and Emerald avenue, Chicago, will build a packing house addition.

Oscar F. Mayer & Bro., 285 Sedgwick avenue, Chicago, will build an addition to their plant especially for the manufacture of sausage.

The Tacoma Meat Co., Tacoma, Wash., is contemplating the installation in its plant of a complete equipment of beef-killing machinery.

Theurer & Norton Packing Company, Cleveland, will build an addition to their packing house.

A NEW S. & S. BRANCH.

The ever widening activities of the Schwarzschild & Sulzberger Company in the South keep them constantly adding to their distributing equipment. The latest plan is for a new branch establishment, to be located at Shreveport, La. Shreveport is the largest distributing point in Louisiana, has excellent railroad facilities and will be made the distributing center for Louisiana, Mississippi and eastern Texas trade. The plans for the new branch have not yet been definitely settled, but officials of the company are now in the field looking it over with that end in view.

THE SWIFT DIVIDEND.

The following notice has been sent to stockholders in Swift & Company by Secretary D. E. Hartwell: Dividend of \$1.75 per share on the capital stock of Swift & Company will be paid on and after the first Monday in April, 1904, to stockholders of record March 23, 1904, as shown on the books of the company. The transfer books will be closed on March 23, 1904, and will be reopened on Tuesday, April 5, 1904.

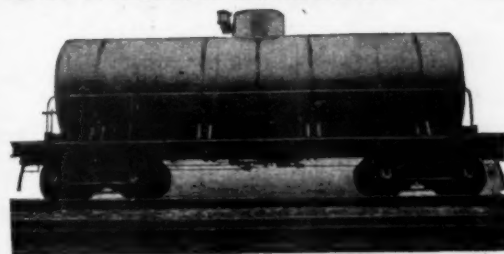
See page 48 for the "Wanted and For Sale Departments. There may be a "find" there for you.

PROPOSALS

PROPOSALS FOR SUBSISTENCE STORES.—Office Purchasing Commissary, U. S. Army, 39 Whitehall street, New York City, N. Y., March 5, 1904.—Sealed proposals for furnishing and delivering subsistence stores in this city for the month of April, 1904, will be received at this office until 11 o'clock A. M. on March 15, 1904. Information furnished on application. Envelopes containing bids should be marked "Proposals for Subsistence Stores opened March 15, 1904," addressed to Major D. L. BRAINARD, Commissary, U. S. A.

PROPOSALS FOR FRESH VEGETABLES.—Office of Chief Commissary, Manila, P. I., Jan. 15, 1904.—Sealed proposals, in triplicate, will be received here until 11 A. M., May 10, 1904, and then publicly opened for furnishing and delivery of fresh vegetables to Subsistence Department at Manila, P. I., during year ending June 30, 1905. About 680,000 pounds potatoes and 140,000 pounds onions per month will be required. Accepted vegetables will be admitted free of customs duties. United States reserves right to decrease amount called for in contract by not to exceed 40 per cent. upon reasonable notice to contractor, or to increase amount called for, with consent of contractor. Each proposal must be accompanied by Bidder's Guaranty in amount of \$20,000 or by certified check for that amount on bank of approved standing in Manila. Bidder to whom contract is awarded will be required to give bond, penalty of which will be fixed by Chief Commissary. Information furnished on application. Envelopes containing proposals should be marked: "Proposals for fresh vegetables for F. Y. 1905, to be opened May 10, 1904," and addressed to HENRY G. SHARPE, Colonel, U. S. Army, Chief Commissary.

Oil Tanks on Steel or Wooden Cars



Strictly According to Penna. R. R. Requirements.

ANY CAPACITY

ANY PURPOSE

Write Us

Warren City Tank & Boiler Works,

WARREN, O.

FEBRUARY STOCK YARDS REPORTS

Following are the statistics of receipts and disposition of live stock at the various centers for the month of February, 1904, as compared with the same period last year:

CHICAGO.

| Receipts. | | | |
|---|---------|-----------|---------|
| | Cattle. | Hogs. | Sheep. |
| February, 1904.... | 559,004 | 1,715,708 | 787,538 |
| February, 1903.... | 513,844 | 1,505,457 | 661,683 |
| Shipments. | | | |
| February, 1904.... | 210,001 | 340,071 | 156,879 |
| February, 1903.... | 174,786 | 258,798 | 42,923 |
| Consumed in Chicago. | | | |
| February, 1904.... | 340,003 | 1,375,637 | 630,650 |
| February, 1903.... | 339,058 | 1,246,650 | 618,760 |
| Average weight of hogs, February, 1904, | | | |
| 205 lbs.; February, 1903, 200 lbs. | | | |

KANSAS CITY.

| Receipts. | | | |
|---|---------|---------|--------|
| | Cattle. | Hogs. | Sheep. |
| February, 1904.... | 138,797 | 200,126 | 88,691 |
| February, 1903.... | 129,660 | 156,603 | 76,758 |
| Shipments. | | | |
| February, 1904.... | 63,832 | 1,191 | 10,488 |
| February, 1903.... | 52,593 | ..... | 7,037 |
| Consumed in Kansas City. | | | |
| February, 1904.... | 75,077 | 199,267 | 75,344 |
| February, 1903.... | 76,350 | 156,055 | 66,444 |
| Average weight of hogs, February, 1904, | | | |
| 222 lbs.; February, 1903, 220 lbs. | | | |

OMAHA.

| Receipts. | | | |
|---|---------|---------|---------|
| | Cattle. | Hogs. | Sheep. |
| February, 1904.... | 66,513 | 221,897 | 148,854 |
| February, 1903.... | 75,591 | 204,040 | 112,352 |
| Shipments. | | | |
| February, 1904.... | 11,594 | 163 | 32,526 |
| February, 1903.... | 16,458 | 1,295 | 20,869 |
| Consumed in South Omaha. | | | |
| February, 1904.... | 51,723 | 221,536 | 104,460 |
| February, 1903.... | 56,207 | 202,422 | 87,518 |
| Average weight of hogs, February, 1904, | | | |
| 231 lbs.; February, 1903, 235 lbs. | | | |

RIGHT SORT OF FOOD MAN.

If his own statement may be taken as he gives it Dairy and Food Commissioner Smith, of Michigan, is a rare avis. He says: "My policy has been to relieve from prosecution, as far as possible, retailers who, although acting in good faith and exercising due caution in the purchase of goods, nevertheless have adulterated articles passed off upon them."

That is the trouble. The retailer is not a specialist. The food inspector doesn't know that foods are adulterated until they have been submitted to the State Chemist, and his opinion is given. Then, how is the retailer to know? He cannot. The government should prosecute the factories. That is where we need the pure food law which places the character stamp upon goods. Then the responsibility would be properly placed.

EXPORTS SHOWN BY STEAMERS.

Following were the exports of commodities from New York to Europe for the week ending March 5, 1904, as shown by Lunham & Moore's statement:

| Steamers. | Oil | | | | —Beef.— | | | —Lard.— | | |
|--------------------------------------|-------|---------|--------|---------|---------|-------|-------|---------|-------|--|
| | cake. | Cheese. | Bacon. | Butter. | Tcs. | Bbls. | Pork. | Tcs. | Pkgs. | |
| Campania, Liverpool | 1846 | 353 | 300 | 105 | ..... | 105 | ..... | 953 | | |
| Carpathia, Liverpool ..... | ..... | ..... | ..... | 365 | ..... | ..... | ..... | 291 | ..... |  |
| Armenian, Liverpool | 1756 | 181 | 628 | ..... | ..... | 81 | 370 | 2250 | | |
| Majestic, Liverpool | 224 | 1132 | 122 | 80 | ..... | 32 | ..... | 1700 | | |
| Philadelphia, Southampton | 294 | 1232 | ..... | 5 | ..... | ..... | 134 | 1350 | | |
| Minnetonka, London | 352 | 402 | ..... | 20 | 250 | 120 | 50 | 2066 | | |
| Brooklyn City, Bristol | 1404 | 134 | 200 | ..... | ..... | ..... | ..... | 3210 | | |
| Consuelo, Hull | 500 | 1606 | ..... | 25 | ..... | 45 | 1465 | 16100 | | |
| Calderon, Manchester ..... | ..... | 49 | ..... | ..... | ..... | ..... | 265 | 3330 | | |
| Furnessia, Glasgow | 535 | 977 | ..... | 125 | 62 | 509 | 393 | 475 | | |
| Patricia, Hamburg ..... | ..... | 50 | 2086 | ..... | 140 | ..... | 1516 | 3028 | | |
| Moltke, Hamburg ..... | ..... | 50 | ..... | ..... | ..... | ..... | 675 | 1659 | | |
| Amsterdam, Rotterdam | 4468 | ..... | ..... | 15 | ..... | 930 | ..... | 675 | | |
| Zeeland, Antwerp | 10943 | 1146 | ..... | 149 | ..... | 115 | 155 | 2699 | | |
| La Champagne, Havre ..... | ..... | ..... | ..... | ..... | ..... | ..... | 20 | 200 | | |
| Miguel de Larrinaga, Havre | 7370 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |  |  |
| Navigator, Bordeaux ..... | ..... | ..... | ..... | ..... | ..... | 77 | 12 | ..... |  |  |
| Island, Baltic | 1166 | ..... | 476 | 70 | 100 | 25 | 825 | 399 | | |
| United States, Baltic ..... | ..... | ..... | 1627 | 15 | 340 | ..... | 405 | 3800 | | |
| Roma, Mediterranean | 196 | ..... | 25 | 100 | 165 | 5 | ..... | 40 | | |
| Prinzess Irene, Mediterranean ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |  |  |
| Citta di Torino, Mediterranean ..... | ..... | 387 | ..... | ..... | ..... | ..... | ..... | 150 | | |
| Totals | 25899 | 5896 | 8171 | 4811 | 1059 | 1072 | 7571 | 44937 | | |
| Last week | 48961 | 5253 | 5762 | 2315 | 1425 | 668 | 385 | 4905 | 32240 | |
| Same time in 1903 | 10994 | 3650 | 4403 | 1990 | 248 | 1577 | 783 | 5330 | 41598 | |

The

National Provisioner

NEW YORK and
CHICAGO

Published by

THE FOOD TRADE PUBLISHING CO.

(Incorporated Under the Laws of the State of New York.)

DR. J. H. SENNER..... President

GENERAL OFFICES

Floor A, Produce Exchange, New York, N. Y.
Cable Address: "Sampan, New York."
TELEPHONE NO. 5300 BROAD.

WESTERN OFFICE

Chicago, Ill.; 447 Rialto Building.
Telephone, Harrison 4455.

Representative for Europe, HENDRICK HARTOG, Hamburg, Germany. Dovensfleet 51 (Brauerhof).

Terms of Subscription Invariably
in Advance. Postage Prepaid:

United States and Canada, excepting New
Foundland \$3.00
All Foreign Countries in the Postal Union,
per year (21s.) (21m.) (26fr.) 5.00
Single or Extra Copies, each10

In requesting your address changed,
give OLD as well as NEW
address

Subscribers should notify us before their subscriptions expire as to whether they wish to continue for another year, as all subscriptions are entered by us for that period. Notice to discontinue should be given before the expiration of the present subscription, as otherwise we must continue the paper for another year. THE NATIONAL PROVISIONER is never discontinued when the subscription expires. Failure to notify us of the subscribers' intentions is equivalent to their ordering the paper continued for another year. The majority of our subscribers would rather not have their subscriptions interrupted and their files broken in case they fail to remit before expiration. We, therefore, take it for granted, unless notified at the end of the year to discontinue, and the amount of back subscription is paid to date, that the subscriber wishes to receive the paper without interruption for another year.

We do not consider that papers returned to our office is notice to discontinue.

No Contract made by any Representative of this Paper is Binding until it is accepted by the Publishers

Valuable Advance Information Exclusively to Advertisers.

Advertising Rates on Application.

Correspondence on all subjects of practical interest to our readers is cordially invited, and the co-operation of all packers, mill owners and superintendents, managers, employees and other thinkers is earnestly desired. Clear, concise articles are especially welcome. News items, local newspaper clippings or any information likely to interest the trade will be thankfully received.

Money due THE NATIONAL PROVISIONER should be paid direct to the General Office, or to any agent bearing the written authorization of THE NATIONAL PROVISIONER to collect. No other payments can be recognized. Make checks, drafts, postoffice orders, etc., payable to the order of THE NATIONAL PROVISIONER, Floor A, Produce Exchange, New York.

The NATIONAL PROVISIONER NEW YORK AND CHICAGO

WILL THE PACKERS TAN?

The hide and leather interests are asking themselves this question: Will the packers become tanners? The packers will have to answer for themselves. There would be this business proposition for the packer to put to himself: Would it pay me to tan hides at the present price of leather? If there is nothing but loss in the tanning of domestic hides at present prices, as the tanner asserts there is, he should not feel concerned about the probability of the packer going into the losing tanning field. But the tanner is concerned even to the point of being terribly perturbed.

That fact alone arouses the suspicion that there is profit in the tanning business, and that the cry for free hides is only a matter of more per cent of profit.

Why should not the packer go into the tanning business? He would simply be finishing a by-product of his steer. Even the shoe factory tans leather and, vice versa, tanners make shoes. The packer might pursue the hide right into the shoe and be consistently in his own line, as he does not turn loose his own product. The packer will not tan if it is to be a losing business. The leather man is simply shivering at the prospect of dividing his big profit, and free hides cannot warm up his bones. If the packer tans it will be the tanner's own fault. Think it over.

ITS OIL THE LIFE OF WOOL

The factory is in a constant conflict with the wool buyer and the wool puller over the quality of his wool. The average wool puller and wool grower thinks wool is wool, and lets it go at that. He thinks a long, clean fibre is all that is needed in wool to give it value to the manufacturer, and, hence, in the market. The factory needs, primarily, a soft even fibre because of its better felting properties. The one thing which produces such fibre is the natural oil in the strand. Many wools are measurably ruined by being over scoured or cleaned. It causes the fibre to become dry and stiff. Too few wool buyers know that the oil is essential to the strength and elasticity of the strand in the weave. That makes the value and selling quality of the garment or the fabric into which the wool is woven. It would be far better if the oil were not extracted from the fleece. The value of Australian fine wools for the woolen mills has been almost destroyed by the drought there, which impoverished the sheep and left the wool fibre dry

and weak. The strands become brittle. The fat sheep does not necessarily give a fat wool. On the contrary, this type or mutton breed puts the fat into the carcass and leaves the strand poor. The big fat sheep of Asia are an instance of it. The removal of the oil naturally causes a shrinkage of the fleece, because the little cylinders dry up and harden. Wool can be cleansed without removing its life, its oil. In this removal the oil man profits at the expense of the woolen maker and of the wool seller.

IS MEAT CONTRABAND OF WAR?

The war in the Orient is raising all sorts of questions. Among them is this one: Is meat contraband of war? It is not. Food is not a death-dealing substance, nor is it contributory thereto unless the ridiculous claim is made that by prolonging the life of the soldier it enables him to shoot more of the enemy. Water and clothing do the same thing. This food contraband question was virtually settled in the negative during the Boer war, when the English seized some flour en route from America to the Boers. The British Government subsequently paid the shippers for the flour. This contraband question is enlivened now by the fact that the Japanese recently seized a ship which had on board a cargo of mess beef consigned on Cudahy's account by a San Francisco house to Russia's agents in the Orient.

There is no law of nations which prohibits the shipping of food to the belligerents from a neutral country. Not even the "aid and comfort" doctrine does so. Where a merchantman endeavors to force the blockade of a "bottled-up" port the case might be different. As long as she is on the high seas with her cargo any neutral ship is free from forfeit, though she can be seized and used. The belligerent confiscating the material necessary must pay the consignor, however. That is the latest practice, and under it is the well understood international doctrine. So, food may go forward and take its chances. The shipment which was seized on the Korea was 1,200,000 pounds of mess beef. Japan must pay for it.

HOME MADE FOODS

There has always been a prejudice in the public mind against factory goods. "Custom made" garments and "home made" foods are more in favor than the product of the factory. There is some reason for it in respect to garments, but there is every reason against such a prejudice when the food question is to be considered. The consumer's aversion to the factory sausage or the factory anything else is that it is handled by every Tom, Dick and Harry during the proc-

ess of manufacture. That is not true. If it were, however, the same objection would lie against the "home made" article, because it is hand made in every particular. The hands of the help making the sausage, the scrapple and other rural-produced substances are cleaner when the process is finished than when the work began. The meats are from uninspected animals, in the case of meat products, and animals that are usually killed and cleaned amid foul barnyard surroundings. The farm hand is not the cleanest, nor are the dirty-aproned help, nor the tools. Nothing is sterilized.

In the factory the product is hardly touched by human hands. Every part of the apparatus is clean and the output is from meats of animals that have passed the strictest ante and post-mortem examinations. The cleaner product comes from the factory because it is scientifically handled. In spite of it all the consumer often prefers the sausage made from home scraps in unsanitary surroundings to that coming from the sterilized and hygienic factory.

IMPORTANT TAX DECISION

The United States Supreme Court has handed down a very important internal revenue tax decision. It is upon this point: Can the internal revenue law providing for a tax on cheese "manufactured and sold" require the tax to be paid upon cheese made here and shipped direct to some foreign house, where it is subsequently sold? Judge Kohlsaat, sitting at Chicago, in the Cornell Brothers case from Elgin, Ill., decided in the affirmative. The plaintiffs appealed. The United States Supreme Court has just sustained Judge Kohlsaat. Cheese manufactured for export will thus have to pay the internal revenue tax. The decision is important to other interests which watched the progress and the final outcome of the case. Our food products should not bear tax burdens. The court could not pass upon that phase. It simply construed the law as it stood. The decision lays bare the tax fact.

SUMMER PACKING BEGINS

February closed the winter packing season. On March 1 the summer packing season began. It found that 9,500,000 hogs had been slaughtered at the principal centers since November 1 last. This showed an increase of 750,000 hogs over the preceding season. Hogs have been running light, however, and continue to do so. The warehouses are not overloaded with cuts and stocks are low. The European demand has been improving for hog products. This tone has been improved by the need for war supplies. Hogs and provisions are persistently rising. The summer pack will be laid down on a higher basis than the kill of the season just closed.

TECHNICAL AND SCIENTIFIC

MILD CURED BACON.

An English authority in the "Meat Trades Journal" gives the following as the correct practice in pale drying bacon:

"The term 'mild-cured' applies to bacon which has been in salt about fourteen days, and it is meant for immediate consumption. When the meat is taken out of the cellar it is washed and drained, and is then ready for drying. The sides are hung up in a room or space which is kept at a temperature of 85 deg. Fahr., and under such conditions the process is finished in about three days. The room must not be very light, as otherwise the lean goes black. If an ordinary room is available, then the window or windows should be washed over with a coating of yellow ochre, which will stop the rays of light that destroy the color of lean meat from passing. The heat in such a room is obtained and distributed on the large scale from steam gilled pipes. These cause the currents of heated air to disperse equally in all directions instead of rising vertically.

"Where no steam is available, as is the case with many in the small way, then a coke fire can be used. In the north of England many large ham and bacon curers use these and nothing else. The fire may be put in a brazier and lighted outside. When all the smoke has disappeared, the brazier is lifted into the drying space, where there is suspended or fixed over it a sheet of iron so as to prevent the heat rising in a straight line, and so cooking the meat. It is very difficult to keep the heat constant at one temperature with a fire of this sort, but it is the next best thing to steam heating. To heat by means of a gas stove is a very good idea, but is rather expensive. In any case the meat should be kept pretty high up and away from the heat, so that the color will not be affected.

"The bacon beetle is a terrible nuisance. It rejoices in a high sounding name (*Dermestes Cardarens*), and works much havoc. It is produced from eggs which are deposited on meats, especially dried meats like bacon. The eggs become grubs, and are very voracious. Presently they become beetles and multiply at an enormous rate. The only remedy is to clear everything out and allow the drying room to have a rest. Clean it well out and lime-wash all the corners heavily, otherwise if only a few beetles are left they will soon play havoc with the meat again."

DENITRIFYING BACTERIA IN MANURE.

True denitrifying bacteria occurring in cattle dung, straw and soil have been isolated and characterized. The investigations show that: (1) Soils normally contain denitrifying bacteria; (2) no special distinction exists between manured and unmanured soils as regards the presence of denitrifying bacteria; (3) the denitrifying bacteria in the soil are able to retain their vitality without yearly manuring; (4) soils contain no specially characteristic denitrifying bacteria; these are of the same species as exist in farmyard manure; (5) the denitrifying bacteria in the manure, straw and soil of a certain district stand in intimate mutual relationship.

SPURIOUS SODA CRYSTALS.

Users of sal soda in general, and soap-makers in particular, cannot be cautioned often and earnestly enough to beware of spurious sal soda. From evidences in a recent case which occupied the London, England, courts it appears that a brand of sal soda, marked B. M. C., has been brought on the market to represent a well-known brand of standard purity. The sample in question contained above 95 per cent. of Glauber's salt and but 4 per cent. of actual soda crystals. When it is remembered that the price of soda is many times that of Glauber's salt, the direct loss in money value may readily be estimated. Furthermore, appreciable quantities of Glauber's salt in the soda tend to directly counteract the cleansing effects of the latter. Soda crystals mean nothing else but carbonate of soda with the necessary amount of water of crystallization which belongs to it, and allowing not to exceed 2 per cent. for impurities in the commercial article. Dealers in and users of this commodity should protect themselves from fraud by having the goods tested by chemical analysis, and as often as a new supply is received.

CHLORIDES AND TANNING MATERIALS.

Chlorides have a marked destructive effect on the tannin in tanning materials, and the losses observed with natural water may be almost completely ascribed to their influence. Thus a natural water containing 0.4655 grm. of chlorine per 1,000, all as calcium chloride, caused a loss of 4.80 per cent. of tannin in the case of pine bark, whilst an artificial water, with 0.500 grm. of chlorine, lost 4.88 per cent. The influence upon extraction is of a double nature, part due to the base and part to the tanning matter. Oak tannin is wasted approximately in proportion to the concentration of the salt solution, and nearly the same is true of sumac, whilst pine bark shows great irregularities. As regards the destructive influence of the various chlorides, this in some instances appears to increase with the molecular weight of the salt used.

DENATURIZING ALCOHOL.

The British Board of Trade announces the offer by the Russian Ministry of Finance of a prize of 50,000 roubles (\$26,500) for the discovery of the best system of denaturizing alcohol. The prize is to be awarded July 1, 1905, which is the last day upon which the denaturing material can be entered for competition.

DETERMINATION OF FORMALDEHYDE.

Attention is drawn to a series of errors in the method given in the German Pharmacopœia for the determination of formaldehyde. It is there directed to mix 5 cc. of the formaldehyde solution with 20 cc. of water and 10 cc. of ammonia solution, allow the mixture to stand in a closed vessel for one hour, then to add 20 cc. of normal H Cl and titrate the excess of acid with normal KOH, using rosolic acid as an indicator. This indicator gives, however, unreliable results should the ammonia contain carbonate, which is nearly always the case. A sample of formaldehyde solution gave 36.74 per cent. of formaldehyde, using rosolic acid as indicator. With methyl-orange 28.46 per cent. was obtained, the latter figure closely agreeing with that obtained by a different method.—Journ. Soc. Chem. Industry.

PRESERVATION OF EGGS.

The eggs are placed in vulcanite baskets, which are then arranged in an air-tight chamber, connected with a vacuum pump. The air is exhausted from the chamber, and shortly afterwards a mixture of sterilizing gases consisting of sulphur dioxide, chlorine and carbon dioxide is admitted. After sufficient treatment the baskets of eggs are removed and immersed for about 15 hours in a dilute solution of sulphuric acid (20 per cent. by volume), either cold or warmed to a temperature not exceeding 176 deg. F. The action of the acid causes the partial conversion of the shell into calcium sulphate, which closes up the pores of the shell.

CONDENSED MILK RICH IN FAT.

One thousand litres of milk are evaporated under reduced pressure at a temperature below 50 deg. C. until the volume is reduced to 200 litres. Forty-five kilos of butter, previously boiled with water and filtered are then added. The mixture is then further concentrated at the same temperature and filled into suitable closed receptacles, in which it is sterilized by placing in boiling water for 18 minutes.

ALUMINUM AND ELECTRICITY.

The use of aluminum is increasing very rapidly for electrical purposes. It is reported that a St. Louis inventor has discovered a pyro-chemical process of manufacturing aluminum from clay much more cheaply than it is now done, and in less time, as this will make a great difference with the manufacture of thermite and will greatly widen its use, it is a matter of considerable importance.

OUR ELEVATORS CAN BE RELIED UPON ALWAYS

If you wish an elevator for first class service you should take advantage of our 30 years' experience in their manufacture and consider our terms. Write for catalogue 35. It covers all the ground.

EATON & PRINCE COMPANY, Chicago

QUERIES AND ANSWERS

(CONDUCTED BY M. D. SLIMMER, PH.D.)

If you are in doubt on any question appertaining to your business, ask us freely. If the question involves expert, technical or scientific knowledge it will be referred to a specialist. This column is yours. Address all communication to the Question Editor, National Provisioner, New York.

COLD STORE, CHICAGO.—We have been interested in Senator Stewart's statements concerning the effects of cold storage on meat and his move for an investigation by the Department of Agriculture. What can you tell us about the scientific phases of meat refrigeration?

Since there has been some discussion as to the effects of cold storage upon the healthfulness of meat, it may not be amiss to give a short review of the little that we know from a scientific standpoint about the ripening and curing of meats. That freshly killed meat is tough, dry and unpalatable is a matter of common knowledge. Before it is fit to be eaten it is necessary that it undergo a ripening process, in order that the so-called rigor mortis may leave it and the meat become soft and juicy.

Complete explanation of this process, I believe, has as yet not appeared in the literature of the subject. The investigations of our most prominent physiologists, however, have shown that the commonly accepted explanation, that the softening is simply due to the softening effect of the lactic acid on the albumens, or to some bacteria action, can no longer be assumed.

Experiments lead to the conclusion that the cells of the animal body are capable of producing substances—so-called *enzymes*—within themselves, which are to a certain extent capable of decomposing the cell tissues without the aid of internal organisms. The ripening of meat may therefore be looked upon as auto-digestion. Investigation in this direction has shown that the ripening process proceeds more slowly in the presence of preservatives than when they are not used, though strong salt solutions, such as are usually used for curing meats, do not entirely inhibit ripening. During this process of ripening the enzymes split up the albumen into albumosus, peptones, and, finally, into amino-acids. The fact that uric acid deriv-

atives, which are commonly the result of the assimilation of meat through the animal body, are not formed in this ripening, is of considerable interest.

Naturally a process of this sort is accompanied by a certain amount of gas formation—the so-called animal gases. This is possibly a partial explanation of why it has been found advisable in practice to preserve all meats intended for curing at a moderate temperature for a short length of time before placing in the pickle. If the intention were simply to remove the animal heat, such a proceeding would not be necessary.

Preliminary experiments conducted in the last year seem to show that we have in this process a complementary reduction oxidation of the meat substances taking place. The fats are partially saponified, and the iodine number of the fatty acids is lowered, while the acetyl number is increased, which points to the formation of oxy-fatty acids.

Though bacteria seem to play no important role in the normal curing of meats, there is undoubtedly as great a future for bacterial investigation along the lines of curing and flavoring meats as has been developed in the dairying industries. One case in particular will demonstrate the adaptability of bacterial agencies in this direction. Fresh meat on cooking becomes gray or brown, while meats treated with saltpetre remain red in color. This is due to nitrous derivative of the haemoglobin formed in the presence of nitrites and reducing agents. Some experiments have shown that certain bacteria have the power of reducing nitrates (saltpetre) to nitrites, thus producing the desired red color in the meat.

Efforts to discover the forms of bacteria most suited for this purpose and to cultivate the same in pickle, which can then be pumped into the meat, will undoubtedly be some of the next developments along the lines of scientific packing-house management.



EXPANDED METAL LOCKERS

are built from material that is open meshed without being jointed or interwoven.

They have no cracks or crevices to accumulate dust, will not become foul or oil soaked. Admit light and air on all sides and are always dry.

Built in units made to fit anywhere.

MERRITT & CO.

1,009 Ridge Ave., Philadelphia

TRANSPARENT WITHOUT GLYCERINE.

A "violet and glycerine soap" without any glycerine whatever is made, according to a French formula, as follows: Melt 66 parts of cocoanut oil, 31 of tallow and 35 of castor oil together at a low heat and pass the liquid fat into a steam-jacketed kettle through a sieve. Treat the fats with 66 parts of caustic soda lye of 38 degrees B. strength, covering the kettle and applying a gentle heat for an hour. The resulting clear, granular mass is then crutched with a solution composed of 35 parts of sugar, 30 of water and 40 of alcohol. Any available soap cuttings may now be added and the kettle covered again until clarification is complete. The soap is finally scented, colored and run into small iron frames. The perfume is composed of: Bergamot oil, 0.45 parts; tincture of benzoin, 3.5; balsam of Peru, 0.45; vanilline, 0.01; orris oil, 0.07; tincture of musk, 0.2; terpinol, 0.21; 0.16 parts of brown coloring No. 120 is also added.—*Oil and Colorman's Journal.*

DECOLORIZATION OF EXTRACTS.

For the clarification and decolorization of organic liquids, especially tanning extracts, the liquids are treated with inert yeast cells which have previously been extracted by suitable treatment. Such cells have a considerable affinity for the coloring matters without removing the tannin constituents of the liquors. The yeast is prepared by heating it with water, preferably in vacuo, at about 50 deg. C. for several hours. It is then digested in a 1 per cent. solution of hydrochloric acid, and subsequently with a 1 per cent. solution of caustic alkali. The exhausted cells are finally soured with acid and washed.—*Journ. Soc. Chem. Industry.*

Fines aggregating \$3,558.83 were collected throughout the state of Minnesota in February through prosecutions under the pure food laws conducted by the state dairy and food department.



MR. OIL USER here is one of many statements that prove what the **CROSS OIL FILTER** will do.

"The Cross Oil Filter reduced our oil bill from \$168.78 per annum to \$65.54 per annum"—Queen City Electric Light Co., Gadsden, Ala. We send the Cross Oil Filter on thirty days' trial. If unsatisfactory, return

THE BURT MFG. CO., 216 Main Street, Akron, Ohio

Largest Mfrs. of Oil Filters in the World
Also supplied by Oil Companies, Engine Builders, and Power Contractors.



THE PRINCIPLE of adding small percentages of **DIXON'S PURE FLAKE GRAPHITE**

in lubrication is as sound as results are remarkable. It decreases friction by getting at the **cause** and rendering slides, cylinders, journals and bearings of any sort, glassy smooth. **Booklet 88C** will surely be of interest. **Sample upon request.**

JOSEPH DIXON CRUCIBLE CO., Jersey City, N. J.



The illustration depicts a line of young girls in white uniforms and tall chef hats, marching in a line. The girl in the foreground is holding a long-handled spoon. To the right of the girls, the text "Swift's Silver Leaf Lard" is written in a large, stylized font. Below this, it says "Premium Ham and Bacon" and "Swift & Company U.S.A.". In the foreground, there are two large blocks of lard and a small tin of lard, all labeled "SWIFT'S PREMIUM". The tin also features a logo with a leaf and the words "SILVER LEAF LARD".

Swift's
Silver Leaf
Lard
Premium Ham
and Bacon
Swift & Company
U.S.A.

The MARCH
of Progress

FOR PURCHASING DEPARTMENTS

ANOTHER BIG BURT ORDER.

The American Ship Building Co. has given a second order to the Burt Manufacturing Co., Akron, O., for Cross oil filters, for their yards at Lorain, O.

BRICK DRYING.

The versatility of the American Blower Co. in providing drying apparatus for various trades is shown in its latest catalogue, number 159, which illustrates and describes a complete line of brick-drying machinery. It will be sent upon application.

MCCORMICK GETTING INTO LINE.

McCormick & Company, the big Baltimore spice dealers, who were burned out by the Baltimore fire, are rapidly getting their business into shape and have not lost their forefront position in the trade. They intend to build one of the finest and most up-to-date plants in the country for their new home and anticipate occupying it long before the first of next year.

THE WERLIIN VALVE.

The Ammonia Company, of Philadelphia, is sending out a booklet of instructions to ammonia users. It also contains a description of its new anhydrous ammonia cylinder valve, accompanied by illustrations, showing how connections are made with the system. The valve is the invention of Mr. Werliin, superintendent of its new ammonia plant, and is called the "Werliin Valve."

REPRESENTED IN ATLANTA.

The Southern Power Supply Company, of Atlanta, Ga., has been made the representative of the Ammonia Company, of Philadelphia, in the Southern city. This company includes in its personnel F. A. Linek, representative of the Frick Company, and John J. Fox, formerly sales manager for the Wolf Company. It may therefore be seen that the Ammonia Company of Philadelphia is in no danger of having its Southern interests neglected.

ELECTRICAL MACHINERY CATALOGUE.

Without doubt one of the finest catalogues issued by a manufacturer of electrical machinery is that of the Triumph Electric Co., of Cincinnati, O. It is just off the press, and from cover to cover it is a work of art. Paper,

drawings, colors are in perfect taste. The illustrations are particularly effective. It is easy to be seen that no expense has been spared in its production and that a master has designed it. Such a production was necessary, however, to adequately describe the electrical machinery made by this company. The catalogue will be sent to those interested upon application.

CREDIT WHERE IT IS DUE.

The legal opinions which were rendered by the highest courts in the State of New York and which were quoted in The National Provisioner in its issue of February 20, under the caption: "Legal View of Some Laws," grew out of litigation to test the constitutionality of the law prohibiting the use of preservaline. The Court of Appeals and the Appellate Division of the Supreme Court were a unit in declaring that the law prohibiting preservaline was unconstitutional. The use of Preservaline was judicially commended. The Preservaline Company succeeded in establishing undisputably the fact that preservaline, which is a compound of non-injurious, undeleterious preservatives, is recommended for the preservation of meats and other foods and contributes to maintain their purity.

COMBINATION OF BIG COMPANIES.

The Allis-Chalmers Company has effected a combination with the Bullock Electric Manufacturing Company of Cincinnati whereby the business of the latter will be taken over and the business of both companies carried on as that of a single interest. The business of the Bullock Company will, however, be conducted by its present management, under the form of a new Bullock Electric Manufacturing Company, organized under the laws of the State of Ohio, with George Bullock as president and Joseph S. Neave, of Cincinnati, as vice-president. This combination will give the Allis-Chalmers Company the facilities of a well-organized electric manufactory, and the Bullock Company will have, for its electric generators, the four prime movers, viz., the reciprocating steam engine, steam turbines, gas engines and hydraulic turbines, now constructed by the Allis-Chalmers Company.

Announcement was made in Milwaukee that Charles Allis has resigned as president of the Allis-Chalmers Company on account of the poor health of Mrs. Allis, with whom he will travel in Europe.

showing an increase of 316,000 over a year ago, Chicago's cattle receipts being 27,300 larger than in February of 1903, hog arrivals at the yards 158,000 larger, while sheep stood 131,000 larger.

While the increase in cattle receipts at the six leading points amounted to less than 40,000 head, the great scarcity of good, well-fatted beeves has been the main comment among traders, the small arrivals of such at Chicago, which generally receives more than double last month's volume of real good steers, was the principal cause for the continued low range for common and medium kinds, Chicago's increase in receipts being by

far confined to arrivals of common and half-fat kinds, while offerings of the better grades have been far less in the past month than during any previous February in years.

All other points have received greatly less supplies of well-fed steers, and the volume of half-fat kinds on the various markets has in a great measure kept the trade in poor shape. Of hog receipts the same may be said, high-priced feed forcing a poor and light grade of animals onto the market, and, though prices have of late shown a downward tendency, the much higher range during the greater part of the month proved very satisfactory to all interests, and was generally unexpected at the beginning of the year, when many prognosticators were confident of a much lower range of values during the first two months of the year. The strong demand for provisions helped values greatly, much higher prices for mess pork and other meats temporarily taking control of the market away from legitimate feeders and distributors, and placing the balance of power in the hands of speculators, who for a time made great progress in their rapid strides toward wealth, but who have since been checked up shortly.

Sheep receipts at the main market points were the largest on record for February, arrivals showing a gain of 171,000 head over marketing at the same points in February of 1903, over 75 per cent. of which increase fell to the lot of Chicago. In the first two months of the year a very substantial gain in all lines was made, arrivals of cattle at these points showing an increase of 66,400 over the same months last year, while hogs increased 432,000 and sheep 267,300.

Receipts of cattle, hogs and sheep at six leading western markets for February and the first two months of 1904, with comparisons:

| | FEBRUARY. | | |
|----------------|-----------|-----------|---------|
| | Cattle. | Hogs. | Sheep. |
| Chicago | 265,704 | 845,894 | 431,612 |
| Kansas City.. | 140,500 | 201,400 | 86,500 |
| Omaha | 66,500 | 221,700 | 148,400 |
| St. Louis.... | 78,800 | 177,200 | 44,800 |
| St. Joseph.... | 39,000 | 158,000 | 56,000 |
| Sioux City... | 20,600 | 106,600 | 1,600 |
| Total 1904. | 611,104 | 1,710,794 | 768,912 |
| Total 1903... | 573,590 | 1,401,525 | 571,716 |
| Total 1902... | 499,330 | 1,779,526 | 434,118 |

| | JANUARY AND FEBRUARY. | | |
|----------------|-----------------------|-----------|-----------|
| | Cattle. | Hogs. | Sheep. |
| Chicago | 559,004 | 1,715,708 | 787,538 |
| Kansas City.. | 300,600 | 304,400 | 171,100 |
| Omaha | 142,500 | 406,300 | 303,900 |
| St. Louis.... | 157,500 | 367,700 | 87,400 |
| St. Joseph.... | 84,300 | 300,100 | 89,800 |
| Sioux City... | 46,400 | 211,500 | 3,000 |
| Total 1904. | 1,290,304 | 3,395,708 | 1,442,738 |
| Total 1903... | 1,223,863 | 2,963,475 | 1,175,475 |
| Total 1902... | 1,220,061 | 3,657,515 | 947,500 |

EXTENDING ITS BUSINESS.

The St. Louis Union Packing Company entertained the retail butchers of St. Louis and vicinity, and others of its friends on Monday evening, at its new branch distributing cooler at No. 3111 North Broadway, St. Louis. The occasion was the formal opening of this new branch distributing house. There was a large gathering of the trade, and the guests expressed themselves as delighted with the facilities afforded for the handling of this new company's rapidly growing business.

THE FEBRUARY MARKETS.

Total marketing of all cattle, hogs and sheep at the six leading markets during February stood at 3,090,800 head, which number was the largest on record for that month, and showed an increase of 518,000 over arrivals during the corresponding month of 1903, while a net increase of 446,000 head was noted in comparison with receipts at those points in February, 1902. Arrivals of cattle increased 38,000 head over 1903, while hogs were 309,000 larger, and sheep receipts 171,000 heavier. Of this great increase in marketing Chicago received the major share, says the Chicago "Drovers' Journal," combined receipts here



ICE ELEVATING —AND— LOWERING MACHINE

Operated by Horse Power.
Suitable for filling large ice-boxes and for use at Packing Houses.

Readily moved from one door to another.

Write for Catalogue and Price-List, illustrating and describing all modern methods of handling ice.

GIFFORD BROS.

HUDSON, N. Y.

ESTABLISHED 1814

ICE AND REFRIGERATION

CORPORATION NEWS.

Peoples' Ice & Fuel Company, Oklahoma City, Okla.; capital \$2,400. N. Steffins, Wichita, Kans.; C. U. and A. S. Connelley, Oklahoma City, incorporators.

Union Creamery Company, Union, S. C.; capital \$10,000. C. G. Voight, Easley, S. C.; R. E. Palmer and others, incorporators. Tyler Ice Company, Tyler, Texas, has increased capital from \$40,000 to \$80,000.

Andalusia Electric, Ice & Water Works, Andalusia, Ala. Frank Sutter is interested.

Morristown Produce & Ice Company, Morristown, Tenn.; capital \$10,000. B. L. Smith, Bruce Robinson and others, incorporators.

Mercer Coal & Ice Company, Atlantic City, N. J.; capital \$20,000. Rudolph Wilson, James P. Wilson, and others, incorporators.

Green Bay Pure Milk Company, Green Bay, Wis.; capital \$30,000. Charles W. Streckenbach, William E. Duncan and others, incorporators.

Brackett Co-operative Creamery Company, Brackett, Wis.; capital \$4,000. L. Germann, William Zimmermann and others, incorporators.

Stevenson Packing Company, Sedalia, Mo., has purchased the plants of the Sedalia Ice & Cold Storage Company and the New York Poultry & Egg Company.

Cairo Ice & Manufacturing Company, Cairo, Ill.; capital \$15,000. Richard E. Gannon, Martin H. Kelley and others, incorporators.

New Britain Ice Company, New Britain, Conn., capital \$10,000, has been incorporated by Franklin E. Rhodes, Herrman Doerr and others.

Portland Creamery Company, Portland, Ind., has increased its capital stock from \$6,000 to \$10,000.

Hemet Creamery Company, Hemet, Cal.; capital \$5,000. P. N. Myers, W. F. Whittier and others, incorporators.

Bessie Dairy & Cold Storage Company, Bessie, Okla.; capital \$5,000. P. H. Flaming, H. A. Weins and others, incorporators.

Fort Winnebago Creamery Company, Winnebago, Wis.; capital \$4,500. J. A. Sweaney, K. B. Cook and others, incorporators.

NEW PLANTS.

Andalusia, Ala.—Frank Sutter has secured a franchise for water works, electric light plant and ice factory.

Oklahoma City, Okla.—B. B. Moss is considering the establishment of a brewery in Sioux City, Ia.

Camden, N. J.—Investors likely to be interested in an ice and cold storage plant proposition can address George J. Bergen, 428 Market street, Camden, N. J. He is in charge of the sale, to be held March 25, of a modern 70-ton plant, with all facilities, located at Atlantic City.

New Roads, La.—L. A. Howell wants to correspond with manufacturers of ice machinery.

Dallas, Texas.—August A. Busch & Co., of St. Louis, Mo., will receive bids for a cold storage to be erected in Dallas, Texas.

Flushing, N. Y.—A. C. Sluiter, president of the Retail Butchers' Association, is receiving bids for a cold storage and ice plant.

Port Lavaca, Texas.—C. J. Spittal will build an electric light and ice plant.

Franklinville, N. Y.—The Empire Manufacturing Company will build a cold store.

East Aurora, N. Y.—Richardson & Beebe are erecting an ice house and creamery.

Earl & Pickering, merchandise brokers, will open a cold storage building in the spring. They are making great plans for eastern and western produce and expect to operate the plant on a large scale.

Toledo, O.—Toledo Cold Storage Company will make improvements to cost \$80,000. F. O. Paddock is president.

Columbus, O.—Crystal Ice & Cold Storage Company has let contracts for machinery and buildings to the amount of \$100,000.

Grand Forks, N. D.—Grand Forks Creamery Association will build a market and cold storage plant.

Terre Haute, Ind.—A brewery to cost \$150,000 will be built by a company now being organized by George Terhorst.

Washington, D. C.—Washington Market Company will greatly enlarge its cold storage plant.

Cairo, Ill.—Cairo Ice & Manufacturing Company will build an ice plant of 27 tons capacity.

FIRE ACCIDENT RECORD.

McCook, Neb.—An ice storage house belonging to the C. N. & Q. Railroad was burned Feb. 29. Loss \$5,500.

Mason City, Ia.—Cold storage plant of McCaulley Bros. has been burned. Loss \$8,000.

Evansville, Ind.—Cold store and commission house owned by Babcock & Seltz was destroyed by fire on Feb. 24. Loss \$17,000.

Ionia, Mich.—Ionia Brewery has been burned. Loss \$60,000.

GIANT INSULATING PAPERS

STANDARD FOR EIGHTEEN YEARS



POSITIVELY SUPERIOR TO ALL
OTHER INSULATING MATERIALS

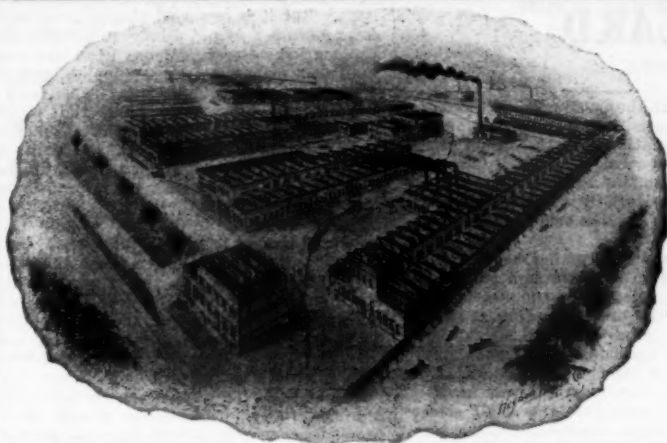
PERMANENT INSULATION ENSURED

Sole
Manufacturers

THE STANDARD
PAINT COMPANY

CHICAGO OFFICE.
188-190 Madison Street

100 William Street
NEW YORK



Henry Vogt Machine Co.

**ICE and REFRIGER-
ATING MACHINERY**

Louisville, Kentucky.

Topeka, Kan.—Topeka Ice & Cold Storage Company has suffered a loss of \$10,000 by fire which almost totally destroyed the machinery.

FRESH AND COLD STORAGE BUTTER.

There was a drop in the market in New York during the last week. Arrivals of fresh were 37,178, as compared with 32,283 for the previous week. Creamery extras were quoted at 24 cents. Cold storage stock came in from interior points and ten carloads came from the West on two days. Holders are begin-

ning to realize that the time has come to put their goods on the market. It is estimated that New York has about 90,000 packages in public and private cold stores, Boston about 92,000 and Chicago over 100,000 packages. More butter has been exported and about 6,000 tubs have gone abroad at a price of 15@17c.

In New York on Feb. 9 prices were quoted as follows: Creamery extras, 24c.; do., firsts, 21@23c.; do., seconds, 17@20c.; do., thirds, 15@16c. Creamery, held, extras, 20c.; do., firsts, 16@18c.; do., seconds, 15@15½c.; do., thirds, 14@14½c. State dairy, tubs, 19@21c.; do., seconds, 15@17c.; thirds, 14@14½c. Western factory, held, 13@15c. Packing stock, held, 13@15c.

In Boston the break in New York had its effect and prices were uncertain. Storage goods were steadier. Prices, extra, 23½@24½c.; do., seconds to firsts, 18@22c. Creamery, held, extras, 22@22½c.; firsts, 20½@21½c.

In Philadelphia the prices sympathized with New York. Creamery extra, 25c.; do., firsts, 21@23c.; do., seconds, 17@20c. Held creamery, 16@20c., as to quality. In Chicago, extra Creamery 23½c.

FRESH AND REFRIGERATOR EGGS.

A detention in receipts caused a slight shortage about the middle of the week. The consumption has materially increased since prices have fallen. Reports from Southern producing sections show that it is now the height of the season, but in Northern sections the cold and wet weather has kept back production. This situation has caused prices to be maintained.

In New York receipts were less than the previous week by several thousand cases. Prices on Feb. 10: Nearby fresh, 22c.; do., seconds to firsts, 20@21c.; Western fresh, 21c.; Kentucky, second to firsts, 20@21c.; Southern, seconds to firsts, 19@20½c.

In Boston market steady and demand increased. Western fresh 21@22c.; Southern,

21c. Receipts for week 14,108, against 10,389 previous week.

In Philadelphia market declined slightly, but recovered on increased demand. Nearby, 21@21½c.; Western, 21@21½c. at mark; Southwestern, 21c. at mark; Southern, 20c. at mark. In Chicago market was steady; extras, 19½c.; firsts, 18c.

Prices for stock to be cold stored have not yet been established, and few contracts for further delivery have yet been reported.

**NEPONSET
AND
LAMINOID
INSULATING
PAPERS**

F. W. BIRD & SON - ESTABLISHED 1877
EAST WALPOLE, MASS. - NEW YORK - CHICAGO

W. H. BOWER, General Manager. GEORGE R. BOWER, Secretary and Treasurer.

The AMMONIA CO.
OF PHILADELPHIA

Gray's Ferry Road and Twenty-ninth Street
PHILADELPHIA, PA.

26° AQUA

Especially Refined and Purified for
ABSORPTION MACHINES

ANHYDROUS

ALWAYS PURE

ALWAYS DRY



**DISTILLED FROM PURE
AQUA AMMONIA OF OUR
OWN MANUFACTURE**

FOR REFRIGERATING AND
ICE MAKING

WERLIIN VALVE

WRITE FOR BOOKLET

NEW YORK: Roessler & Hasslacher Chemical
Co., 100 William Street.

CHICAGO: F. C. Schapper, 16 N. Clark Street.

CINCINNATI: C. P. Calvert, 9 E. Pearl Street.

MILWAUKEE: Central Warehouse.

ATLANTA: Southern Power-Supply Co.,
406 Century Bldg.

AMERICAN LINDE REFRIGERATION Co.

ICE-MAKING AND REFRIGERATING MACHINERY

AMERICAN LINDE PATENT AIR CIRCULATING SYSTEM

**Keeps Meat in Better Condition and for Longer Time!
Than Any Other System**

INSURES PURE AIR—SWEET MEAT—NO MOULD—BEST COLOR

FURTHER INFORMATION ON REQUEST

PROVISIONS AND LARD

Weekly Review

All articles under this head are quoted by the bbl., except lard, which is quoted by the cwt., in tcs., pork and beef by the bbl., or tierce, and hogs by the cwt.

Still Erratic Conditions—No Pronounced Upward Movement—Shaking Out "Longs" and Little New Investment Demand—Cash Stuff Not Offered at Relative Prices with the Basis on Speculation.

It is clear that the hog products market is not as yet just right for permanently bullish moves.

That prices are spasmodically carried upward means nothing more than temporary manipulation. The market settles frequently, in a few minutes, from any improvement made.

Yet there have been some conditions of trading this week that would have, under ordinary circumstances, made a pronouncedly firm market. With the "long" interest, however, not thoroughly eliminated, any favorable features have failed of their usual influence.

The receipts of hogs have been moderate, while they have been urgently wanted at better prices most of the time, and even upon days in the week when the products markets were weakened. On Thursday, however, hog prices reacted moderately, or about 10c. per 100 lbs.

Two or three weeks since, when the limit of the high prices for the products was reached, there was a good, substantial packing profit on the cost of hogs, notwithstanding that there was then more or less of an improvement in the prices of the hogs. But the singular development more recently in an almost steadily hardening of prices of the hogs and the held down prices for the prod-

ucts have brought the packing outfit down to a very narrow basis, if it has not completely disappeared by relation with the option prices of lard, pork and ribs, although it must be said that cash stuff of desirable meats cannot be had at materially lower prices than some of the outside prices held for them only latterly.

But the packers are getting back a good deal of cheap option stuff through the recent sharp break in prices, and unquestionably their profits on the option trading are of a substantial order, since they had let the outsiders have the options freely when they were climbing for them a few weeks since on the sentiment then from the war news.

It is quite possible that the Wall street speculators and those combined on the bull side in the late spurt look to affairs got out of their deals before the inside prices, on the break, were touched. But the other outsiders have in some degree been holding their contracts, as expecting an early reaction to the market. The fact that the market is still unsettled is possibly due more to the clinging to the "long" side of the few outsiders who seem determined to await developments. There is very little new demand, as the general sentiment over buying by speculators is paralyzed by the recent upset markets.

The packers, while they have been, most of the time this week, ready sellers of the options, on every bulge, yet have not been forced to sell at all freely because of the slacker new demands.

Any bear raid upon the market has been helped by the course of the grain markets.

There appears to be a good deal of confidence as to the future of the products markets, whatever fluctuations in prices are happening or are likely to happen for a few

days. But it is conceded that a permanently firmer temper is not likely to develop until the market is resting more upon the direct influences of hog and other supplies, and cash demands recover confidence.

That the hog receipts at the packing points have been of a moderate order for some few days has been in line with the opinions of some of the traders, who have held that for a few weeks after the late rush forward of the hogs, that the receipts of them would be of an ordinary volume. It is quite probable, however, that with better weather conditions over the West that there will be some increase in the receipts of hogs, even if they do not in the near future reach the large volume had of them last month. Then, again, that shortly thereafter, when the farmers begin their spring farm work, that the hog receipts will fall off.

The packing now going on certainly does not materially increase the stocks of the products, even though cash demands for them are of a hesitating order. And if there is not soon a material increase in the hog receipts the fact that the products have more materially accumulated in stock through January and February, particularly in the latter month than in many months before, would not be considered against a move for more regular prices. There is unquestionably a large waiting cash demand for more secure conditions of the products markets. There have been no prices of the products that have materially interfered with the consumption of them; but the distributors have permitted their stocks to run down, and they would be disposed to freely re-supply when assured of more regular market conditions and to meet the free, full consumption.

The best demand for meats comes from the South. There have been larger consignments of both meats and lard latterly to the continental and United Kingdom markets.

The cash demand for lard continues of a restricted order, and the compound lard moves but slowly by comparison with its temper of

THE W. J. WILCOX

LARD AND REFINING COMPANY

NEW YORK
OFFICES: 27 Beaver Street

Refiners of the Celebrated
Wilcox and Globe Brand

PURE
REFINED
LARD



CARROLL S. PAGE, HYDE PARK, VT.

Green Calfskins, Country Hides, Sheep
Pelts, Tallow, Bones.
Wool Puller and Tallow
Renderer | Manufacturer of
Page's Perfected
Poultry Food

CINCINNATI PROVISION EXPORT CO.

401 Chamber of Commerce, Cincinnati
214 Produce Exchange, - New York
Exporters of Pork Products
Lard a Specialty

Correspondence Solicited.

trading a few weeks since. The lard trading must, of course, increase materially in the near future, whether in the pure product or the compounds, and as depending upon the course of prices, since the consumption of the fats is unabated.

The compound makers can get cotton oil upon a cheaper trading basis than they had a fortnight since, and find, as well, less confident views over the holdings of oleostearine. But there has been a firm feeling over the prices of the compounds, since, however, easier in the price than latterly, the raw materials are, yet they are full high compared with the selling value of the compounds, and the margin of profit does not justify prices for them more in the buyer's favor, although higher or lower cost pure lard prices, as they may be, will determine in some degree the future value of the competing products.

The average weight of the hogs at Chicago last week was the smallest in months, or only 199 lbs., against 208 lbs. in the previous week; 211 lbs., week in 1903, and 213 lbs. in 1902.

Last Saturday's products market closed 20 up on ribs, 25 on pork, and 15 points on lard. On Monday there was a strong market early, but the close showed declines of 25 for pork, 10 points for lard and 5@10 points for ribs. Tuesday's trading was at higher prices early, while the close showed unchanged to 5 lower prices for pork, 2 points for ribs and an advance of 2@5 points for lard. Wednesday's market was early higher on the moderate hog supplies, but became weak with the sharp decline in corn; pork closed 10 lower and lard and ribs 2 points off. Thursday's early products markets were weaker, but closed a little higher.

In New York there has been a moderate export business, with sales of 300 bbls. mess at \$15.50@16; 400 bbls. short clear at \$15@16.50, and 150 bbls. family at \$16.

Western steam lard quoted here at about 7.35. City steam lard has been sold at 7c. Compound lard quoted at 7c. for car lots. In city meats, bellies have a fair demand, with supplies not beyond needs and prices firm on the cost of hogs. Sales of 60,000 pounds pickled bellies, 12 lbs. average, at 8c.; 14 lbs. average, at 7½@7¾c.; 12 lbs., at 8¼c., and smoking at 8¼@8¾. About 4,000 pickled shoulders sold at 6¼@6½, and 5,500 pickled hams at 9¼@10½c.

Exports for the week from Atlantic ports: 5,514 bbls. pork, 13,028,709 lbs. lard, 12,468,561 lbs. meats; corresponding week last year, 2,203 bbls. pork, 13,678,500 lbs. lard, 10,517,687 lbs. meats.

BEEF.—Low grades are pretty well cleaned up. General market firm. City extra, India mess, tcs., \$16@17; extra mess, bbls., \$9.50@10; packet, \$10.50@11; family, \$11.50@12.

PRODUCE EXCHANGE NOTES.

Clemens A. Molinari (G. Amsinck & Co.) was proposed for membership.

Visitors: Clement Scott, Edinburgh; E. J. Power, A. Dion, London; Y. Rosenberg, Hamburg; T. A. Kirkpatrick, Y. MacLachlan, Glasgow; G. H. Hanna, Montreal; J. W. Daggett, Chas. W. Hess, Paul E. Derrick, Walter Hately, Chicago; F. G. Harris, Cincinnati.

HIDES AND SKINS

(Shoe and Leather Reporter.)

CHICAGO.

| | 1904. |
|--------------------------------|----------|
| Native steers, spready..... | 11¼@12 |
| Native steers, heavy..... | 10¼@10½ |
| Native steers, light..... | 9¼@9½ |
| Texas steers, heavy..... | —@11½ |
| Texas steers, light..... | 10½@10¾ |
| Texas steers, ex. light..... | 9½@9¾ |
| Butt branded steers..... | —@10 |
| Colorado steers..... | —@9¾ |
| Native cows, over 55 lbs..... | —@9½ |
| Native cows, under 55 lbs..... | —@9¼ |
| Branded cows..... | —@9½ |
| Native bulls..... | —@8½ |
| Branded bulls..... | —@7½ |
| Pates, per 100 lbs..... | —@85 |
| Trimnings, per 100 lbs..... | —@75 |
| No. 1 heavy steers..... | 9 @ 9¼ |
| No. 2 heavy steers..... | 8 @ 8¼ |
| Side branded steers, flat..... | 8 @ 9 |
| Side branded cows, flat..... | 7¼ @ 8 |
| No. 1 heavy cows..... | 8½ @ 8½ |
| No. 1 buff hides..... | 8½ @ 8½ |
| No. 1 ex. light hides..... | —@8½ |
| No. 2 buff hides..... | 7½ @ 7½ |
| Bulls, flat..... | 7½ @ 7½ |
| No. 1 calfskins..... | 12¼ @ 13 |
| No. 1 kips..... | 10 @ 10¼ |
| Deacon skins, each..... | 65 @ 85 |
| Slunks, each..... | 40 @ 60 |
| Horsehides, each..... | 3.55 @ — |

Sheep Pelts.

| | |
|---|-------------|
| Green salted pelts, p'ker lambs..... | 1.15 @ 1.25 |
| Green salted packer sheep..... | 1.40 @ 1.50 |
| Green salted country pelts..... | 85 @ 1.25 |
| Dry pelts, Montana, butchers' full woolled..... | 12 @ 12½ |
| Dry pelts, Utah butchers' full woolled..... | 11¼ @ 12 |
| Dry pelts, Wyoming butchers' full woolled..... | — @ 12 |
| Dry pelts, Colorado and New Mexico, butchers' fair run..... | — @ 11 |
| Dry flint shearlings, good stock..... | 10¼ @ 11 |
| Dry flint shearlings, damaged..... | 3 @ 7 |
| Dry murrains, Montanas and Utahs..... | 12½ @ 12½ |
| Dry murrains, Colorado..... | 11 @ 12 |

BOSTON.

Dry—Selected.

| | |
|------------------|----------------|
| California..... | 21@25..19 @— |
| Southern..... | ..13 @14 |
| San Antonio..... | ..18 @— |
| Texas..... | 21@28..17 @17½ |

Salted.

| | |
|---|--------|
| Brighton abattoir steers..... | 9¼ @— |
| Brighton abattoir steers, butt-branded..... | 8¼ @— |
| Brighton abattoir cows..... | 8½ @— |
| New England cows, green..... | 6 @ 6¼ |
| New England cows, salted..... | 8 @ 8½ |
| New England steers, salted..... | 9 @— |

Wet Salted.

| | |
|------------------------|----------------|
| Southern..... | 35@40..7¼ @ 7¼ |
| Texas ox and cow..... | 60@70..7¼ @ 7¼ |
| Western cows..... | 8½ @ 8½ |
| Western seconds..... | 7¼ @ 7¼ |
| Extremes..... | 8¼ @ 9 |
| Extremes, seconds..... | 7¼ @ 8 |

Calfskins.

QUOTATIONS.

| | |
|-------------------|-------------|
| Dairy..... | 60 @ 65 |
| 4 to 5 lbs..... | 80 @ 85 |
| 5 to 7 lbs..... | 95 @ 1.00 |
| 7 to 9 lbs..... | 1.25 @ 1.30 |
| 9 to 12 lbs..... | 1.60 @ 1.65 |
| 12 to 16 lbs..... | 1.85 @ 1.95 |
| 16 to 25 lbs..... | 2.20 @ 2.25 |

NEW YORK.

Selected.

| | |
|--|---------|
| City natives—60 lbs. and over..... | 9¼ @ 10 |
| City butt brands—60 lbs. and over..... | —@ 9¼ |
| City Colorados—60 lbs. and over..... | —@ 9 |
| City bulls—all weights..... | 8 @ 8¼ |
| City cows—all weights..... | 8¾ @ 9 |

City Calfskins.

| | |
|-----------|----------------|
| 5-7..... | \$1.12½ @ 1.15 |
| 7-9..... | 1.40 @ 1.45 |
| 9-12..... | 1.65 @ 1.70 |

Country Calfskins.

| | |
|-----------|---------------|
| 5-7..... | \$1.00 @ 1.05 |
| 7-9..... | 1.30 @ 1.35 |
| 9-12..... | 1.57½ @ 1.62½ |

OUR ITALIAN MEAT TRADE.

The imports of lard into Italy have declined during the last few years from 5,500 tons in 1899 to 900 tons in 1902, says United States Consul General de Castro, of Rome, in a report to the State department. The imports from the United States are naturally also decreasing in the same proportion, the more so that they contribute largely to the total trade. The development of the domestic production explains this state of things, for which there is no remedy. In the line of fresh meats, also, the import is almost nil, and this is easily explained, as the consumption of this article in Italy is rather limited. The Italian people rarely eat fresh meat; it is too expensive and they can afford it only on holidays. In northern Italy, where the use of meat is more general, beef is almost exclusively consumed. In central and southern Italy mutton and lamb are preferably used. The latter meats are generally less expensive.

The provinces of Lombardy and Emilia are the most important markets for pork. Large salt-meat factories are established in those districts. The latest market price for fat animals was from \$25 to \$26 per 100 kilograms (220.46 pounds); lean, from \$23 to \$24 per 100 kilograms; sucklings, from \$4 to \$5 per head. It is a question whether these prices are high enough to permit of American importations.

The LUNKENHEIMER "Handy" Gate and Lever Throttle VALVES



Are Unequaled in Places where Reliable
QUICK-ACTING Valves are Required.

The "Handy," for pressures not exceeding 75 lbs., is made in sizes ranging from ½ inch to 4 inch in Brass; 2 inch to 8 inch in Iron, brass mounted; 1 inch to 8 inch in all Iron. The Lever Throttle Valve, for 175 lbs. pressure, is made in Brass, ¾ to 2½ inch; Iron Body, brass mounted, 2½ to 6 inch. These valves are made only in Screw Ends. Simple, practical, low priced. Specify Lunkenheimer make and get the original and best. Supplied by dealers. Write for catalogue.



THE LUNKENHEIMER CO., Sole Makers and Patentees,
BRANCHES: 26 Cortlandt St., New York; 35 Great Dover St., London.
CINCINNATI, OHIO, U. S. A.

TALLOW, STEARINE, GREASE and SOAP

Weekly Review

TALLOW.—The market has a tamer look, without showing absolute change in prices.

There is little question but that the upset lard market has a good deal to do with the beef fat position, as it has weakened confidence among buyers of all fats and produced a very dull situation.

It is not so much the feature that because the pure lard market has recently sharply declined and that there is less business in compound lard, by which the compound makers would naturally be quieter in their demands for tallow, as it is that the soapmakers, and which source of demand had been most important for some months, are relying more upon their held stocks of the tallow and in good degree now keep out of the market, while they are likely to be indifferent as buyers until they can get clearer ideas of the future of other fat markets.

That hogs are arriving of exceptionally lighter average weight and of very moderate number, and that their prices are steadily higher has not had influence upon the lard market in materially firming it from its late decline, and because of the late strained speculation in the lard.

It is possible that the hog supplies may materially increase as soon as the roads are in better condition over the West.

It is very doubtful, however, that the public will become as freely interested in the lard speculation as latterly, and while a firmer lard market is looked for after a while, there is little expectation of late full prices being reached again in the near future for it.

Therefore it rather looks as if the tallow market would not have the sentiment from lard to bolster it, and that it would depend more upon its direct features of supplies and demands.

We think that tallow prices just now are supported close to late prices, more because the tallow had been so well bought up that the accumulation on the more recent dulness has not as yet become burdensome; but that the market leans a little in the buyer's favor.

That cotton oil has sold at a little further decline this week has no especial significance, since the price of it is still higher than usual as against that for tallow, and so far as concerns that feature there is no interference with the consumption of tallow. And palm oil and cocoanut oil markets keep up well in price, and tallow in prices is of course materially favorable to the soapmakers as against the prices for the oils.

It is just this: that the soapmakers do not care to buy the tallow at all freely, while some other fat markets have disarranged value, and that sellers, observing the values of these other markets and the slackness in the tallow trading, are a little more nervous concerning the tallow prices.

There has been some little urging for sale

of nice tierced, out-of-town-made tallow, and the bidding was slow and generally unsatisfactory.

There was one bid for a special lot of city, hhds., of 5½c., and it was turned down; it came from the West. The market is nominally 5½c. for city, hhds., without a sale in several days, and city tierces is offered at 5½c. Edible is quoted at about 5½@5¾c.

The country made is selling slowly. Some choice goods offered at 5½c.; sale of 325,000 lbs., in lots, at 5½@5¾c., as to quality.

The London sale was unchanged, with a little over 500 casks offered and about 20 per cent. of it sold. The western markets are rather easy and slow.

Later in the week prices declined in New York to 5c. for city hogsheds, with fully 500 hogsheds sold at 5c. to New York and Eastern soapmakers.

OLEO-STEARINE.—Trading has been brought to a standstill this week on account of the general loss of courage from the situation of the lard market. There had been trade hopes that lard would quickly react from its late sharp decline, as it has some favorable features for a reaction in the moderate receipts and light weights of hogs. But just now there is lack of snap to the market, and the compound lard business is slow, by which there is hardly important inquiry for the stearine from the compound makers. The price is nominally 7¼c. as a seeming basis, although to 7½c. is asked, and sales of car lots reported at the west at 7@7¼c.

LARD STEARINE.—Hardly material demand. Quoted at 7½@8¼c., nominal.

COCOANUT OIL.—Holds up well, with only moderate supplies. Ceylon, spot, 6½@7c.; March and April arrivals, 6½c.; March to May shipments, 6¼@6½c.; Cochin, spot, 7¼@7½c.; March and April arrivals, 7@7¼c.; March to May shipments, 7c.

NEATSFOOT OIL.—Trading is limited to small quantities; 20 cold test, 97c.; 30 cold test, 85@86c.; 40 cold test, 67c.; prime, 52@54c.; dark, 46c.

CORN OIL.—Somewhat irregular in price, without much trading. Quoted at 4.25@4.40.

PALM OIL.—Only small sales making with a steady market. Red, 6¼c.; Lagos, 6½@6¾c.

GREASE.—Exporters are doing little, and home trade buying is of a moderate order. Prices are about steady. Yellow, 4¼@4½c.; bone and house, 4½@4¾c.; "B" white, 4¼@4½c.; fine white, 5¼@5½c.

GREASE STEARINE holds to steady prices; not much demand: Yellow, 4¼@5c.; white, 5½c.

OLEO OIL.—Wholly nominal, with resales offered lower. Rotterdam quotes nominal; resales at about 46 florins. New York, choice, 8¼c.; prime, 7¼c.; low grade, 5½c.

COTTON SEED STEARINE.—Quiet and nominally.

LARD OIL.—Moderate jobbing sales and an unsettled market. Prime quoted at 62@63c.

ARMOUR'S SIOUX CITY FIREMEN.

Armour & Company have organized an independent fire company to furnish protection again fire at their Sioux City plant. The company will consist of eight men and will have temporary headquarters in the old ham house, the only building left by the fire of November, 1902. James Hanson, formerly a member of the Sioux City fire department, will be fire marshal. The organization was accomplished by A. A. Williams, chief fire marshal for Armour & Company at South Omaha, and E. C. Kohansky, chief operator at South Omaha, who has charge of the Armour telegraph, telephone and fire alarm systems at that point. The members will be on watch day and night and in a position to fight any ordinary fire which might start during the time the plant is in process of erection, and before the city shall have put in its proposed 16-inch main.

A DUTCH ADMIRAL.

Louis Philipp, of Rotterdam, Holland representative of the Armour Packing Company, is making a tour of American packing plants for purposes of observation. Though Mr. Philipp was supposed to be well posted on American packing-house progress, he expresses himself as astonished at the wonderful system developed by the packers of the United States.

"The system of killing and packing beef is a wonderful one," said he in Kansas City the other day. "I have been in the meat business a number of years, but did not appreciate the magnitude of the thing until I saw your Western plants. American beef is very popular in my country, and a great amount is consumed yearly, but the people have no idea of the immense plants in which it is prepared."

BEARING THE HOG MARKET.

Advices from Dublin, Ind., say that James Deihl has a brood sow that is 7 years old, and it is one of the most prolific sows in this part of the country. A year ago last August she gave birth to twenty pigs. In February following that to sixteen, in June sixteen, and in December sixteen. She raised forty-one out of these sixty-eight pigs. At 5½ months old one of them averaged 208 pounds and another 245 pounds. The sow is probably the progenitor of a thousand pigs.

Prime Green Olive Oil Foots

UNCLE SAM BRAND

QUALITY, THE SUPREME TEST

They cost a little more than ordinary Foots but if you buy "UNCLE SAM BRAND" you will be so pleased with the results that you will forget the price and always remember the quality

Welch, Holme & Clark Co., 383 WEST STREET
New York City

COTTONSEED OIL

Weekly Review

THE NATIONAL PROVISIONER is an official organ of the Interstate Cottonseed Crushers' Association, and the official organ of the Oil Mills Superintendents' Association of the United States.

Lower Drift of Prices.—Dull Compound Makers' Demand.

The premonitions of weakness, as noted in our previous review, have been emphasized this week, more especially at the seaboard markets, and particularly in New York. Yet some of the mills are easing up in their views as to prices, however, that many of them decline to sell under the present conditions of the market, as expecting reactions in it. Unquestionably, any pressure of the mills would add to the present depression at the seaboard, and which has back of it dull demands from the compound makers through the failure of the pure lard market to recover promptly from its late decline and some manipulation.

Even admitting, as claimed by some traders, that there are important interests better satisfied with lower prices for the oil at this time of the year in that crude oil may be had cheaper, or that "short" sales of the refined may be protected, or covered with a profit, there are unquestionably weak features to the situation, for the present at least, and as composed of a marked slackening of compound makers' demands, the unsettled pure lard market as an outcome of speculation, and notwithstanding that pure lard prices should do better on their merits from hog supplies and some other features.

When some prominent buying sources ceased to support the oil market a few days since others allowed it to take, as well as urging, a course for it to easier prices, while they have been favored by the sudden shift about of easier fat markets, which had had sentiment in speculation to support them, but which have broken badly latterly, notably the lard market, from the efforts of the leaders in it to shake out "the public," which had tailed in extensively on the late bulging movement in lard, in a speculative way, while the leaders were getting the stuff back cheap.

It was clear that if the lard market failed to react quickly from the sharp decline it had that other products would be affected to weakness. Since it was necessary to have compound makers' demands for cotton oil, and these were obtainable only in any force as the pure lard market position would prompt a quicker sale of the compounds.

As soon as the lard market broke the

compound lard business, which had been gaining vitality at hardening prices, with the consumption of cotton oil enlarged, quieted; this tended to shut off the demand from the compound makers for cotton oil; therefore, it was a matter of a few days thereafter for cotton oil to become weak and to be left so, as at this writing, at substantial declines in prices.

There is no question but that from some features that the lard market ought to be upon a better basis than that existing.

For instance, steadily more money is being paid for hogs by the packers, while the price of lard is kept down. The weight of the hogs at Chicago last week was only 199 lbs., the smallest since December, 1901. Moreover, the receipts of the hogs are very moderate, and the accumulation of the lard has not made further headway, whatever it gained in February. And this accumulation of the lard would disappear easily if market conditions were sufficiently settled for cash buyers to take hold, and who have been working off their held stocks rather than entering the market in its unsettled condition from its speculative features.

There is needed more regularity to the lard market for a larger business from the compound makers in cotton oil, since with the present exhibition of the hog fat trading the distributors of the compounds prefer to use their held stocks than to enter the markets freely with buying orders for them.

Unless the hog supplies materially increase, and there are many traders who think they will be of ordinary volume for some few weeks, the lard market should after a while, or as soon as the outside "long" interest is fully eliminated in it, work to a better basis.

We have no expectations of seeing late outside prices for lard prevailing again, as before asserted, for the near future, whatever prospects there are of a better temper to its market than at present.

Our opinion is that hog supplies will increase somewhat as soon as the roads and general weather conditions are better over the West, but that just as soon as the weather permits farm work that there will be lighter supplies of hogs, in which period the packers are likely to turn the products market more in their favor on cash demands.

There are traders with the opinion that no bulge is probable for the lard product, whatever its prospects of increased firmness, and as reasoning upon the basis that both hog and beef fats, as well as grain, have had too high value in the late outside cost of them, and that if it had not been from sen-

timent on the war news and the excited buying of the public through the feeling that "a war always means higher prices," that no such range of prices as had on the late excitement would have been possible either for hog products or grain; but the people with these opinions think that lard has gone, on the recent reaction, nearly low enough, considering its statistical position and the outlook of the hog supply; and that there is some chance now of a fairly well supported position to around current prices, with ultimately situations more in the sellers' favor.

Be this as it may, there is no question that so far as concerns cotton oil that the compound makers have lost courage, that they are now talking bearish, even those who had very bullish ideas concerning the oil market not more than two weeks since, as they were then very confident, as well over beef and hog fats.

There is no disputing the point that the lard market in its variableness is at the bottom of all weakness or firmness in other fat markets, however, indirect the influence may be at times. There are products that can steer away from its changeable temper for awhile and as they may have favorable statistical features of their own, and this has been true of cotton oil; but ultimately the course of the lard prices either enlarges or abates confidence in other fats either directly or indirectly, since high lard means more active consumption of edible oil for the consumption of compounds, and a reversed position a modification of the oil consumption.

There has been a decline in the prices of cotton oil to this writing from the top notch made a little more than two weeks since of 2½¢. per yellow, as concerns the refined oil, prime yellow grade, in New York.

Thus the highest prices made on March delivery of refined, a few days since, in New York were 39½¢. for March and 41¢. for May; at this writing March delivery is selling at 37½¢., and May delivery at 38½¢.

The compound makers, some of them, begin to talk way down for crude, in tanks at the mills; or 30½¢. as their buying price; this may mean that they do not care to buy at all, just now, and name the price as it permits them to keep out of the market for developments. Some of the mills having a tank or so to sell have accepted in the Southeast, 32¢. for them, and this is at least 1¢. lower than the outside prices made for corresponding quantities about three weeks since; but many of the mills decline to sell at that and keep out of the market on offers to sell, as awaiting developments. There is an occasional tank or so offered at other Southern points, including the Valley, at 31½¢. and 31¢. bid.

The holders of bleaching grades are not making concessions, as awaiting clearer ideas

KENTUCKY REFINING CO.

LOUISVILLE, KENTUCKY, U. S. A.

MANUFACTURERS AND REFINERS
OF ALL GRADES OF

COTTONSEED OIL

"SNOWFLAKE"

A CHOICE WHITE OIL

FOR BAKING, FRYING AND COOKING

Southern Cotton Oil Company

Head Office: 11 Broadway, New York

Cable Address, "Scotoilco," New York.

Mills and Refineries in Georgia, North and South Carolina, Alabama, Tennessee, Arkansas, Louisiana and Texas.

Manufacturers of all Cotton Seed Products

Oil Cake and Meal, Hulls, Linters, Soap Stock and Soap.

Refiners of Cotton Oil, all Grades.

Manufacturers of Lard Compounds.

Refineries Located at Savannah, Augusta and Atlanta, Ga.; Charleston, S. C.; Charlotte, N. C.; Montgomery, Ala.; Houston, Texas; New Orleans, La.; Memphis, Tenn.; and Little Rock, Ark.

of the future, although the compound makers' demand for them are at a standstill.

There is a trade impression that, while the oil market is weak and dull, and that because of its dullness, from the reversed order of the lard market, and which latter exhibit, although it has had depression from speculation more than from any other feature, that it is very easy to bear prices of the oil; therefore that more of the oil is being taken up at the decline than the same sources are selling, yet it is undeniable that the oil market may go even easier before the turning point is reached, and that the best prices for the oil are not among the probabilities right away, and as we have before remarked, perhaps not until a later period of the year, and that the modified oil productions will not have their full bearing until the period comes about for the packers, and not the public, to take hold of the lard market for all that is in it from statistical features, by which the consumption of cotton oil would

be increased for the make and distribution of the compounds. There would seem to be reason to expect that before the close of the oil season, before the new crop, that the liberal loss of lard production from the exceptionally light weights of the hogs arriving would encourage demands for the compounds and a freer absorption of cotton oil. Although prices of corn have declined latterly, they are even now much higher than last year, and the corn is still being marketed rather than fed freely to live stock. This must continue a feature by which the hog supplies of the country will have an early marketing to a steady material loss of their weight.

The Southern people who had sold their crude oil in the fall months freely and bought the refined against it at the seaboard for deliveries from this along, are, as a rule, not disposed to urge their holdings, although, in instances, on their part there seems some desire to test the market here, and perhaps

in instances they are not so confident as they were latterly; at least for the near future of the market, however firm in their opinions some other of the holders are.

There have been some trade deductions that a portion of the current weakness in the market is owing to the usual desire at this time of the year to get the crude oil upon a more reasonable basis of prices, against the selling price of the refined, and also to take in any cheap lots of refined that may come out, and, as well, to buy cheaper oil as against some liberal "short" sales that had been made for May delivery, some time since. Nevertheless, the market is inherently weak from the features reviewed. Just how long the weakness may last is not clear, but reactions are expected finally from the inside point. It is certain that if there was any consideration of forcing a market to cover short sales that had been made some time since at lower prices that it could go lower. At the same time if there should be

THE AMERICAN COTTON OIL CO.

CABLE ADDRESS "AMOTOIL," NEW YORK

COTTONSEED PRODUCTS

OIL, CAKE, MEAL, LINTERS, ASHES, HULLS



GOLD MEDALS
AWARDED
CHICAGO, 1893
PARIS, 1900

AMERICAN COTTON OIL CO.

27 Beaver Street, New York City

GOLD MEDALS
AWARDED
BUFFALO, 1901
CHARLESTON, 1902

WRITE OR WIRE US FOR
PRICES AND SAMPLES.

CABLE ADDRESS—"ARMSTRONG" DALLAS.
CODES—LIEBER, ROBINSON, YOPPS.

ARMSTRONG

PACKING Co.

PACKERS - SOAP MAKERS -
COTTON SEED OIL REFINERS.

DALLAS, TEXAS.

a turn in the lard market of a permanent order, of which there is some question at once, however expected a little later on, that the oil market would feel its influence at once. It would require more of a buying disposition for the oil from outside sources than seems at present a probable feature to counteract the temper of tameness at present exhibited, with the pressure over selling whatever reaction may happen after a while.

It is not possible, as yet, to learn much as to the extent of the holdings of the oil at the South, although the feeling is that there is less oil held there than in last year at this time. The holdings of crude in the Southeast are believed to be very moderate; they may be of very fair volume in some other sections, as it is said they are, notably in the Valley and Texas, more especially in the Valley. But clearer ideas will be had of this after a while. And there is another development that will be awaited with interest, and that is as to the extent of the "second crush."

There is no foreign demand for the oil outside of a small inquiry for the edible grades. There are reports that about 1,300 barrels of the oil are coming back from Trieste.

The sales are 30 tanks crude, in lots, in the Southeast and elsewhere at 32@32½c., chiefly at 32c., with 31c. bid and 31½c. asked in Texas. In New York sales of 2,000 bbls. refined, prime yellow, April and May, 40c., and afterwards 300 bbls. April at 38¼@38½c.; 2,000 bbls. May at 39½c.; 400 bbls. do. at 39¼c.; 3,000 bbls. do., at 39c.; 400 bbls. do. at 38¾c.; 1,400 bbls. do. at 38½c.; now at 38½c.; 300 bbls. March at 38½c.; 600 bbls. do. at 38c.; 1,000 bbls. do. at 37½c.; now at 37½c.; 700 bbls. June at 39½c.; 800 bbls. do. at 39¼c.; 300 bbls. do. at 39c. There were 39c. bid for 5,000 bbls. July and bids were refused on some round lots for June delivery at the selling prices for other quantities.

COTTONSEED OIL SITUATION.

(Special Letter to The National Provisioner from Aspegren & Co.)

There is no doubt that one of the leading concerns has been very much interested during the past week in hammering the market down. The concern fought last week's advance also at every point. The heavy decline in lard of about 1c. per pound during the week gave them the opportunity they wanted, as compound lard makers withdrew, and buyers of refined also became very cautious. There has hardly been much resistance to the pressure, although quite some June and July oil has been taken up for speculative account. May has been the active month, and it is especially this option that has been hammered down.

Crude oil has naturally been affected by the decline in refined, and sales have been made at lower figures, but we cannot say that the offerings of crude are very free. How far down the market can be pressed is hard to

say. Considerable more steadiness has, however, developed during the past two days. We quote to-day as follows:

Prime summer yellow cottonseed oil, March 37c. sales; do., April 38c. asked and 37½c. bid; do., May 38c. sales; do., June, 39c. sales; do., July 39½c. sales; do., August 39½c. asked and 38c. bid; do., September 39c. asked and 38c. bid; do., October 37½c. asked and 35½c. bid; do., November 36c. asked and 35c. bid; do., December, 36c. asked and 34c. bid; prime winter yellow cottonseed oil, 40½c.; prime summer white cottonseed oil, 40c.; Hull quotation of cottonseed oil, 19s. 6d.; prime crude oil in tanks in the Southeast, 31½c. to 32c.; do. in Mississippi Valley, 31½c. to 32c.; do. in Texas, 31c.

COTTONSEED OIL CAPSULES.

Considerable surprise and amusement was caused in cottonseed oil and laboratory circles over the purported analysis of some new kind of cotton seed at the laboratory of Dr. Felix Paquin, the chemist of the Merchants' Exchange, in Memphis, Tenn. The surprise was at the extraordinary percentage of oil in the seeds, the amusement at the discomfiture of those concerned. The figures as given out showed that the seed yielded 72½ gals. of oil to the ton crushed. Those who have crushed up to 58 gallons from mixed valley seed felt the back number fever badly. The postoffice department did not bar the correspondence which came in after that, even though some of it was sulphur-laden. It was the highest analysis that had ever been obtained from even the most carefully selected seed.

Then the chemist began verifying himself. He at once saw that the additions were wrong. The error was so palpable as to make him smile, after the first spasm of annoyance over it had passed. The corrected figures showed 55.4 instead of 72.5 gallons of oil. Then the cottonseed mill people felt easier. The actual results were as follows: Meats, 55.3 per cent; hulls, 44.7 per cent; oil in

meats, 37.6 per cent; oil in seed, 20.8 per cent; oil in seed, 55.4 gallons. This is a bit below some other tests. The corrected figures stop a rush for the new seed, with the hope of big oil results, at Cushing. Some wags had already labeled the new seed "cottonseed oil capsules."

NEW MILL AT MONTGOMERY.

The Planters' Cotton Oil Company will erect a new 50-ton mill at Montgomery, Ala., to be operated in connection with their present plant. The cost of the new plant will be in the neighborhood of \$50,000, and cottonseed products of all kinds will be the output.

Lombard Iron Works & Supply Company

AUGUSTA, GA.

Builders and Dealers in ENGINES, BOILERS, Tanks, Stacks, Standpipes, etc.; Bridge and Architectural Iron Work; Railroad, Cotton, Saw, Fertilizer, Oil and Ice MACHINERY and Supplies and Repairs; Shafting, Pulleys, Hangers, Leather and Rubber Belting and Hose; MILL SUPPLIES and TOOLS; Foundry, Machine, Boiler and Bridge Work. Capacity for 300 hands.

ASPEGREN & CO.,

Produce Exchange,

NEW YORK,

Commission Merchants

EXPORTERS

Cotton Oil, Tallow

AND GREASES.

The Procter & Gamble Co.

Refiners of All Grades of

COTTONSEED OIL

Aurora, Prime Summer Yellow
Boreas, Prime Winter Yellow
Venus, Prime Summer White

Marigold Cooking Oil
Puritan Salad Oil
Jersey Butter Oil

Cable Address
Procter, Cincinnati, U. S. A.

Office: CINCINNATI, O.
Refinery: IVORYDALE, O.

LIVE STOCK REVIEWS

CHICAGO.

(Special to The National Provisioner from the Bowles Commission Company.)

CATTLE.—Receipts of cattle the first three days of this week were 48,826, being about 4,500 more than the same period last week. Official receipts for Monday were 29,597. The supply was much larger than expected, but the heavy run was caused probably by the upturn in the market last week, although plain and medium kinds of steers last Thursday and Friday sold lower. Trains were late again and the market slow to open. The proportion of prime cattle in comparison with the total receipts was small and the exporters and shippers had liberal orders. Desirable steers, such as sold at \$5 and upward, met with good demand at steady prices. Top cattle reach \$5.85 for two loads of mixed Angus and shorthorns averaging 1,439 pounds. Some 1,474-pound steers sold at \$5.70, and a few sales of prime cattle were recorded at \$5.25@5.50. The bulk of the medium to good cattle sold 10@15c. lower and most of the medium, 1,200@1,400 pounds, sold from \$4.40@4.75, the plainer kinds at \$4@4.40, and common light steers from \$3.25@3.90. Exporters bought freely of good cattle at \$4.60@5.

Butcher stock was in liberal supply and generally 10c. lower. Best cows and heifers at \$4.25 and the bulk of the good fat kinds at \$3.15@3.60. Medium kinds, \$2.45@3; best bulls, \$3.75; the bulk of the good fat kinds at \$3.15@3.50; choice export bulls at \$3.65. Bologna bulls, \$2.75@2.90; common, \$1.60@2. Canners and cutters sold from \$1.15@2.85, others \$2.25@2.50. Stockers and feeders were in liberal supply, country orders small. The yards were in bad shape, owing to the recent soft weather, and feeders are experiencing trouble in carrying their purchases from day to day on account of the heavy shrink.

Receipts Tuesday were 3,229; no choice cattle were on sale and the market was generally steady. Bulls met with slow sale and calves declined 50c. Top veals, \$6.25; the bulk, \$5@5.50, with common to fair kinds at \$4@4.75. Heavy veal calves in liberal supply, principally \$3@3.50. Estimated receipts to-day 16,000; market is strong, 10c. higher. Local packers have large supplies of dressed beef in the coolers and bought sparingly. Eastern shippers and exporters made their purchases at an advance of 10c.

Country advices indicate that the supply of fat cattle on hand is getting low and with the prevailing high price of corn there is little disposition on the part of cattle feeders to purchase corn to finish their cattle. It is expected that the proportion of prime heavy steers will grow smaller from now on. A good demand is springing up all over the country for stock cattle and feeders to be carried through the summer, but prices on this class of cattle are out of proportion to the values of the fat kinds.

HOGS.—Receipts of hogs the first three days of this week were 53,180, against 101,945 the same period last week, shows the remarkable decrease of 48,765 as compared with the first three days of a week ago, a daily decrease of over 16,000. Receipts Monday were 22,841, the market was active and 10@20c. higher. The average cost price of hogs on the Chicago market Monday was \$5.41, against \$5.25 Saturday and \$5.35 a week ago and \$7.40 a year ago. Best hogs Monday sold at \$5.72½. Receipts Tuesday were 10,349. The supply was a general disappointment to the trade, and several of the large packing concerns were out of the market entirely. Others bid sparingly, the packing concerns here claiming that hog values are entirely too

high. There was a fairly good shipping demand, and the market was active and stronger. Average price for the day was \$5.47, the bulk of the sales from \$5.30 to \$5.60. Pigs sold from \$4.60 to \$5.10. Tops for selected heavy \$5.72½, same as Monday. Estimated receipts to-day are 20,000, market active, and unevenly higher, prices showing an advance of 5@15c., tops at \$5.85. The soft weather that has prevailed during the past week has put the country roads in bad shape, and has seriously retarded the movement of hogs to market, but it is expected that the upturn in the values of the past few days will cause a free movement at an early date.

SHEEP.—Receipts of sheep the first three days of this week 58,915, being about 5,000 less than the same period last week. The market closed in very bad condition last Friday. With a good run reported on Monday morning prices declined 10@15c. all round. The quality of the stock was not up to standard. Best lambs sold at \$5.85, with right good killers from \$5.25 to \$5.65, yearlings \$5 to \$5.25; exporters in strong demand; fine heavy wethers sold readily at \$4.75, with some contracted at \$5. Handy weight wethers sold to packers at from \$4.35 to \$4.60, best ewes \$4.25 to \$4.40, with good kinds at \$4@4.25. Tuesday's market was a little steadier, and prices closed a little stronger, a good many sales showing a reaction of 10c. With 25,000 reported to-day there was a good strong demand on choice lambs quotable at \$5.75@5.90, good \$5.35@5.65. Choice tops \$4.50@4.65, exporters \$4.75. Choice ewes \$4.25@4.50, good \$4@4.25, fair quality \$3.75@4. Outlook seems favorable for the balance of the week.

ST. JOSEPH

(Special to The National Provisioner.)

The centering of supplies in the East the fore part of the week caused a sharp reaction in values for cattle, a decline of mostly 10 to 15c. with the close of last week, which almost dissipates all of the advance of the first half of last week. The top last week was \$5.25. Cows and heifers continued in strong demand and moderate supply, and prices gained 10 to 15c. Bulls and stags sold steady. Fleishy feeders broke 10 to 15c., but desirable qualified yearlings and stockers sold at an advance of 10c.

Under liberal marketing and lower markets at all of the outside points and the lower trend to the market for provisions, local packers pounded the market last week to the tune of about 15 to 25c., but the demand was good at the lower range of prices.

Receipts of sheep last week were fairly good, but the demand was fully equal to or greater than the supply. Mutton grades made up a moderate proportion of the receipts and prices held steady, but owing to the adverse conditions East the trade for lambs, which offerings largely predominated the supplies, showed a break of mostly 10 to 15c.

KANSAS CITY

(Special to The National Provisioner.)

CATTLE.—Receipts this week were 29,200; last week, 29,000; same week last year, 30,000. The week's supply has included a fair sprinkling of good to choice beef steers, and prices on the same have been quiet, averaging 10 to 20c. under the best time last Thursday. Top price was \$5.25. Cows and butcher stuff have been scarce, and prices are unchanged from a week ago. Stockers and feeders are stronger than a week ago, and are at the highest point of the winter just now. Good quality steers range from \$3.75 to \$4.40 for stockers, and more than that for fleshy feeders; for bulls, dull; veal calves steady, best \$6.50.

HOGS.—Receipts this week were 27,900; last week, 39,400; same week last year, 27,700. Hog prices were slightly higher Monday and Tuesday, but otherwise the market

has been draggy at steadily declining prices. Packers continue to appear indifferent, and prices close at the bottom each day. Market is 5 lower to-day, and top is lowest since the break began at \$5.35. Bulk of sales, \$5 to \$5.30. Quality and weights are declining noticeably recently, indicating that the winter hog crop is about marketed.

SHEEP.—Receipts this week were 22,900; last week, 24,800; same week last year, 18,800. A lower tendency has been evident in all kinds of sheep during the week. Wethers and ewes are only a shade lower, lambs and yearlings about 10c. lower. No extra good quality has been here to test prices thoroughly, but good lambs sell up to \$5.60, yearlings \$5 wethers \$4.50, ewes \$4.10.

HIDES are unchanged; green salted, 7c.; side brands, 6½c.; dry flint butcher, 15c.; under 16 lbs., 14c.; fallen, 13c.; dry glue, 7c.; sheep pelts, 10c.

Packers' purchases this week were:

| | Cattle. | Hogs. | Sheep. |
|---------------------|---------|--------|--------|
| Armour | 3,884 | 10,410 | 2,601 |
| Cudahy | 3,486 | 5,197 | 1,484 |
| Fowler | 507 | 798 | 312 |
| Ruddy | 625 | 366 | 538 |
| Schwarzschild | 3,544 | 7,276 | 4,183 |
| Swift | 4,217 | 6,471 | 5,734 |

SHEEP SLAUGHTERED.

Special reports to The National Provisioner show the number of sheep slaughtered at the following centers for the week ending March 5:

| | |
|--------------------------------|--------|
| Chicago | 71,477 |
| Omaha | 28,968 |
| Kansas City | 21,775 |
| St. Joseph | 17,996 |
| Cudahy | 247 |
| Sioux City | 29 |
| Wichita | 22 |
| Cincinnati | 864 |
| New York and Jersey City | 19,076 |
| Fort Worth | 850 |
| Detroit | 1,477 |
| Buffalo | 39,600 |

CATTLE SLAUGHTERED.

Special reports to The National Provisioner show the number of cattle slaughtered at the following centers for the week ending March 5:

| | |
|--------------------------------|--------|
| Chicago | 31,667 |
| Omaha | 11,744 |
| Kansas City | 15,308 |
| St. Joseph | 9,347 |
| Cudahy | 385 |
| Sioux City | 1,111 |
| Wichita | 231 |
| Cincinnati | 2,171 |
| New York and Jersey City | 7,788 |
| Fort Worth | 4,271 |
| Detroit | 865 |
| Buffalo | 6,900 |

HOGS SLAUGHTERED.

Special reports to The National Provisioner show the number of hogs slaughtered at the following centers for the week ending March 5:

| | |
|--------------------------------|---------|
| Chicago | 101,044 |
| Omaha | 38,957 |
| Kansas City | 39,231 |
| St. Joseph | 27,252 |
| Cudahy | 6,823 |
| Sioux City | 8,479 |
| Ottumwa | 6,200 |
| Cleveland | 7,500 |
| Cedar Rapids | 5,591 |
| Wichita | 6,333 |
| Nebraska City | 6,455 |
| Bloomington | 817 |
| Cincinnati | 8,670 |
| Indianapolis | 16,813 |
| New York and Jersey City | 31,817 |
| Fort Worth | 9,102 |
| Detroit | 4,328 |
| Buffalo | 30,600 |



CHICAGO SECTION



Oscar F. Mayer & Bro. will build an addition to their plant on Sedgwick street. It will be used especially for manufacturing sausage.

The Chicago office of the American Vacuum Can & Machine Company, which was at No. 71 West Jackson street, has been removed to the Monadnock Building.

"Sammy" Welles, hog buyer for the Continental Packing Company, does not believe prices are going to soar. He figures that both the quantity and quality of hogs is adverse to a continuous bull movement.

Miller & Hart will build an addition to their plant, costing in the neighborhood of \$150,000. The increasing business of this firm makes the improvement necessary, and it will be run to its full capacity immediately upon completion.

The Kaiserhof Hotel, refitted and refurnished, is now doing the best business in its history. Almost every day the register shows the names of packers and cattlemen, and this famous hostelry seems to be a popular center for the trade.

James Cuning, now with Kingan & Company, Indianapolis, who has introduced a trolley system which chiefly differs from other systems in the size and construction of the wheel, has made arrangements to have this machinery made by the Allbright-Nell Company.

The Schwarzschild & Sulzberger Co. have had plans drawn for a cold storage warehouse to be erected on the site of their packing plant at Ashland avenue and Fortieth street. The building will be 106 x 175 feet, eight stories high, and the approximate cost will be \$150,000. Brick and heavy mill construction will be used.

Asa A. Davison, long the efficient manager of George M. Sterne & Son, has established himself at 508 Rialto Building, where he will conduct a general brokerage business in packing house and cottonseed oil products. The concern will take the name of the Davison Commission Company. Mr. Davison is well known to the trade as an aggressive, untiring operator and one who commands the respect of all factors.

The circular issued by a committee of holders of International Packing Company stock has been made the basis for a statement by E. R. Dillingham in the "Record-Herald" that another packing company has come into control of this property through the clever manipulation of a local banker. The fact of the matter is a large block of International Packing Company bonds has been on the market for a long time and finally found purchasers.

The story which emanated from a certain packing house quarter—which of late has been very active in disseminating rumors—that the packing house machinery supply houses were contemplating a combination, is made out of whole cloth. Under no circumstances would William R. Perrin & Company enter into such a deal, as it is well known that this firm believes in individual efforts and is certain to continue in business independent of any consolidation movement that might be proposed by others. There is always sure to be honest and strenuous competition in this trade, however much a combination might be indicated.

The new "Supreme" trademark of Morris & Company, which is now seen on their refrigerator cars, is considered by many judges in this line a most creditable achievement. The versatility of some men is best seen when they are confronting a crisis, and it is then that genius comes to the foreground. It will be remembered that the former "Supreme" trademark represented a porker addressing the bench. How objectionable this representation was to many can well be imagined, but no one knows how many protests from prominent men reached the office of Morris & Company. H. G. Bartruff, the publicity manager of Morris & Company, at once saw an opportunity to record the high intentions of this firm, doing honor to the constructive body of our eminent court of last resort by adopting the symbol of royalty and principality. Mr. Bartruff's work is consistent in its high degree of

excellence, and everything that comes from his workshop bears the earmarks of good judgment and a conspicuous sense of the artistic.

Swift & Company make the following announcement through the Chicago papers this week: "Recognizing that the centennial of the Louisiana Purchase is to be appropriately celebrated this year by a great World's Exposition at St. Louis, it is our purpose in connection with the advertising of our Cream Laundry Soap and Wool Soap in the Chicago newspapers this spring to publish a series of cartoons drawn by Ralph Wilder, which shall depict in a broad and liberal manner some of the more important facts in the history of the Louisiana Territory, including the discovery of the Mississippi River by Ferdinand de Soto, in 1541, the successive ownership of the territory by Spain and France, and finally its transfer from France to the United States in 1803.

"We trust these cartoons will prove both pleasing and instructive."

At a meeting of the Council Judiciary Committee held on Tuesday it was decided to reconsider the vote recommending the passage of ordinances providing for the centralization of rendering plants on the southwest side. Aldermen Foreman and Snow took a decided stand against the plan, and Alderman Foreman carried through a resolution that the matter be referred back to the subcommittee with instructions to report back an ordinance creating separate rendering plant districts in each grand division of the city. Alderman Snow asserted the people of the South Side

ALLBRIGHT-NELL CO.,
4013 Westworth Avenue - Chicago
WEIR & CRAIG MFG. CO.,
2421 Wallace Street - Chicago
Special Agents Hurford's Hog Hoist



Exclusive agents for Europe
and South America.
Brecht
Butchers' Supply Co., 26-28 Al-
bertstrasse, Hamburg, Germany.
O. P. Hurford's Hog Hoist
FOR SMALL PACKERS
537 Rialto Building
CHICAGO, ILL.

Leading Packers

through their alert
Purchasing Agents
Buy SUPPLIES Here

WHY NOT YOU?

Woodenware
Packs
Paper
Salt
Pails
Skewers

Fuller's Earth, &c.

FRED K. HIGBIE
COMPANY

35 So. Water St., Chicago

would not tolerate an ordinance which would fix the sole rendering plant district on the South Side for all time.

Deliveries of packinghouse products here last week amounted to 8,261,000 pounds, an increase of 1,050,000 pounds. It was the largest week's tonnage in over five years, there being a gain of 419,000 pounds over the same week last year, and 3,553,000 pounds as compared with 1902; it was also about 20 per cent more than the average for the past five years. Receipts of cured meats increased nearly 1,000,000 pounds over last year, but receipts of dressed beef, while making a small gain, were 1,462,000 pounds less than last year.

With the approach of spring the baseball fans are beginning to come out from under cover. The prospects are that the Packers' League will be a greater success this season than ever. Harry Miller, who can be styled the originator of the league, is a representative of the G. H. Hammond Company team. Miller has played locally for fifteen years, and was one of the star Crane team some twelve years ago. He was one of the charter members of the Commercial League of 1900, serving as manager of the Fire Insurance team in that organization. The associate representative of the Hammond team is Mr. Catlow, who has played in Hammond, Ind., for several years. Elmer Langdon, who acquired much fame as manager of Tom Murray's Kids and also well known in indoor baseball, will be one of Armour's representatives. His associate is Charles McDonough, prominent in National Union baseball circles last season. Billy Hercock, who has been a Commercial leaguer since 1900, will have charge of Swift & Company's team. D. W. Williams and Josh Billings will have the Sulzberger & Schwarzschild team. Williams was interested prominently in amateur baseball in Kansas City for several years. Mr. Wilks, the representative of Nelson Morris & Co., was interested in indoor baseball a few years ago. Mr. Lyman, who will guide the destinies of Libby, McNeil & Libby's club, has been in the game for a good many years. A meeting was held at the Transit House last week, at which a code was submitted and permanent officers elected, and other routine business transacted. The boys connected with the other business firms at the yards, not to be outdone by the packers, have started in to revive the old Stock Yards League, and an effort will be made to battle for a championship banner.

A feature of the cattle trade here last month was the extraordinary receipts and the remarkable shipments. There has not been a

month in the history of the live stock business when so much difficulty was experienced in getting cars to haul the cattle that were bought by shippers, yet over 40 per cent. of the cattle received were shipped out, says the "Drovers' Journal." This is a much greater proportion than usual at this season of the year, when dealing in feeding cattle is at low tide. Of the cattle received here during 1903 37 per cent. were reshipped. The reason for the heavy volume of business done by outside buyers here last month was due to the heavy demand for export cattle, of which close to 32,000 head were purchased during the month. This looks as if Chicago had some buyers besides the so-called "big four."

Michael Cudahy is seriously ill at the Pasadena Hospital. He is suffering from mastoiditis, an inflammation of the mastoid process. While Mr. Cudahy's condition is not at all alarming, the attending physicians admit that it is of a serious nature. Mr. Cudahy maintains a winter residence in Pasadena. He had been ailing for several weeks and on Monday last there was a consultation of the doctors who have been attending him. It was decided to insist upon his removal to the Pasadena Hospital, where he would be assured of the best attention and his physicians would have the advantage of every necessary convenience. An operation was decided to be necessary and Mr. Cudahy was removed from his home to the hospital on Tuesday. In the meantime Dr. Selfridge, of San Francisco, was sent for and the operation was performed. Dr. Selfridge was assisted by Dr. J. H. McBride, Dr. W. T. Bolton, Dr. W. H. Roberts and Dr. Fleming, of Chicago. The operation was in every respect successful. The disease from which Mr. Cudahy is suffering has not of itself caused the doctors to regard it with concern, but the advanced age of their patient and the probability of complications caused them to consider the case a serious one.

For some time prior and during the early stage of the Asiatic war there have been many reports concerning the sale and shipment of meat foods to the scene of action. Owing to the fact that provisions sold to either of the belligerents for purposes of supporting the military or naval arm of the service may be pronounced contraband local packers have been loath to confirm these reports.

It has also been claimed by a number of larger inland packers that neither Russia or Japan are consumers of pork products, and this view was reiterated as late as this week by one of the leading factors, who said: "No extra sales of pork, bacon or other pork products are to be expected to result from the Russian-Japanese war. The Japanese eat no

pork and the Russians have pork to sell. In fact, much of the bacon and butter exported from Russia to England comes from along the line of the Trans-Siberian Railroad, and that road is often unable to furnish sufficient cars to take care of all that is offered for shipment.

"There may be some shipments of tinned beef to the Russians, but nothing more than have been going forward for some time for use by the railroad construction workmen along the Trans-Siberian line. Only two governments on earth issue beef as an army ration—the United States and Great Britain. Each of these used more during the Spanish-American and Boer wars than will be used by the Russian and Japanese armies combined."

PROPOSED ORDINANCE DAMAGING.

President Arthur Meeker, of the Omaha Packing Company, properly complains that the proposed Chicago ordinance restricting rendering plants to a certain territory would work a serious hardship to his company. He says:

"The so-called rendering ordinance, as I believe it has been reported to the City Council, limits the territory in which slaughtering-houses, rendering establishments and businesses of a similar nature may be operated and conducted to a very narrow district, and will result in the closing of a large number of the existing plants, including the Omaha Packing Company. The Omaha Packing Company was established nearly forty years ago, and has been operating continuously to the present time. When the plant was originally constructed it was not the institution that you see to-day. The trade of the company has grown, and the plant has been enlarged and improved from time to time to meet the demands and necessities of a constantly increasing business. We now have 1,250 employees and an annual pay roll of between \$800,000 and \$900,000.

"The plant is modern in every particular, and it has been the constant aim and desire of the management of the company so to conduct the business and operation of the plant as to minimize the grounds for objection from a sanitary standpoint. Our plant is equipped with the latest appliances, and has every modern facility and convenience known to the packing industry.

"Our labor very largely lives in the immediate vicinity of the plant. Many of our men own their own homes, and were actuated to make their investments there by reason of their hope and expectation of steady employment in the future. The success and future of the merchants in that vicinity in a very large measure depends upon the presence and operation of the Omaha Packing Company. All questions of removing such institutions should be dealt with broadly, for much which stands for the city's good is involved.

"Unquestionably, the territory in which the rendering plants and kindred institutions shall be permitted to operate should be made the subject of reasonable limitation, but the virtual destruction of an existing property such as that of the Omaha Packing Company should receive the most careful and deliberate consideration, and should be resorted to only when every other means looking to the city's good have failed.

"The removal of all of the affected plants

THE DAVIES WAREHOUSE & SUPPLY CO.

Office: 20 N. Clark St.
on C. & N. W. R. R. } CHICAGO
Warehouse: 161 N. Water St.

Tools, Scoops & Shovels.

Manufacturers and
Dealers in all kinds of
Packing House Supplies.

ALL IRON TANK
COCKS, D & D Pattern

x x x
HAM and LIVER
NEEDLES

x x x
BRASS and IRON
GOODS.

into the proposed district is impossible for the reason that suitable locations cannot be obtained. If any of the existing establishments and plants are offensive or objectionable, or looked upon as a menace to the health and comfort of the people in that vicinity, the proprietors are to blame and not the business, for the reason that the business now done by any of them may be conducted in such a way as to be entirely inoffensive.

"There can be no valid objection to a defined purpose of the city to compel any of those plants affected by the proposed ordinance to observe every reasonable rule and regulation to an amelioration of objectionable conditions. Require the plants affected to employ all the modern methods and appliances known to such industries, and compel the exercise of every reasonable care in their conduct and management, and there will be no just cause for complaint by the public.

"In other words, let the city take every precaution looking to the regulation of these institutions in their present locations, rather than destroy them by prohibiting their operation where they now are. Many of them are now absolutely above criticism or objection, and all can be so operated through the use of proper care and appliances. The present established and existing industries should not be disturbed so long as they are operated along the lines I have indicated."

CHICAGO HOG PURCHASES.

Packers purchased at Chicago during the week ending March 5, as follows:

| | |
|---------------------------------|---------|
| Armour | 25,700 |
| Anglo-American | 12,800 |
| Continental | 3,500 |
| Swift | 22,800 |
| Hammond | 6,200 |
| Morris | 9,100 |
| Boyd, Lunham | 3,400 |
| S. & S. | 8,000 |
| H. Boore | 1,700 |
| Roberts & Oake | 2,500 |
| Other packers and city butchers | 17,800 |
| Total | 122,300 |
| Total last week | 200,700 |
| Total year ago | 106,500 |

RECEIPTS AT CENTRES.

SATURDAY, MARCH 5, 1904.

| | Cattle. | Hogs. | Sheep. |
|-------------|---------|-------|--------|
| Chicago | 200 | 7,000 | 1,500 |
| Kansas City | 150 | 2,000 | 200 |
| Omaha | 250 | 3,000 | 250 |
| St. Louis | ... | ... | ... |

MONDAY, MARCH 7.

| | | | |
|-------------|--------|--------|--------|
| Chicago | 30,000 | 25,000 | 26,000 |
| Kansas City | 6,000 | 6,000 | 3,000 |
| Omaha | 3,700 | 2,800 | 6,000 |
| St. Louis | ... | ... | ... |

TUESDAY, MARCH 8.

| | | | |
|-------------|-------|--------|--------|
| Chicago | 2,500 | 15,000 | 15,000 |
| Kansas City | 7,000 | 8,000 | 4,000 |
| Omaha | 3,500 | 5,500 | 8,000 |

WEDNESDAY, MARCH 9.

| | | | |
|-------------|--------|--------|--------|
| Chicago | 16,000 | 20,000 | 25,000 |
| Kansas City | 8,000 | 7,000 | 5,000 |
| Omaha | 3,500 | 6,800 | 10,000 |
| St. Louis | ... | ... | ... |

THURSDAY, MARCH 10.

| | | | |
|-------------|-------|--------|--------|
| Chicago | 7,000 | 27,000 | 18,000 |
| Kansas City | 5,000 | 7,000 | 2,000 |
| Omaha | 3,000 | 5,000 | 8,000 |
| St. Louis | ... | ... | ... |

FRIDAY, MARCH 11.

| | | | |
|-------------|-------|--------|--------|
| Chicago | 2,000 | 30,000 | 8,000 |
| Kansas City | 1,000 | 5,000 | 2,000 |
| Omaha | 2,300 | 5,200 | 15,000 |

CHICAGO STOCK YARDS RECEIPTS AND SHIPMENTS.

RECEIPTS.

| | Cattle. | Calves. | Hogs. | Sheep. |
|---------------------|---------|---------|---------|--------|
| Monday, Feb. 29 | 23,585 | 966 | 58,920 | 40,455 |
| Tuesday, March 1 | 2,682 | 1,368 | 17,614 | 8,615 |
| Wednesday, March 2 | 17,961 | 707 | 25,411 | 14,864 |
| Thursday, March 3 | 8,013 | 613 | 22,184 | 19,328 |
| Friday, March 4 | 2,749 | 139 | 13,282 | 9,001 |
| Saturday, March 5 | 293 | 42 | 6,641 | 995 |
| Monday, March 7 | 30,000 | 650 | 25,000 | 36,000 |
| Total last week | 55,196 | 3,535 | 144,052 | 93,258 |
| Same week last year | 59,345 | 3,392 | 115,040 | 74,738 |
| Year ago this week | 56,437 | 3,429 | 120,175 | 69,721 |

SHIPMENTS.

| | | | |
|---------------------|--------|-------|--------|
| Monday, Feb. 29 | 4,873 | 9,733 | 4,952 |
| Tuesday, March 1 | 3,013 | 99 | 7,445 |
| Wednesday, March 2 | 5,232 | 77 | 6,434 |
| Thursday, March 3 | 5,612 | 4 | 5,571 |
| Friday, March 4 | 4,505 | 57 | 7,961 |
| Saturday, March 5 | 294 | 5 | 5,955 |
| Monday, March 7 | 5,500 | 5 | 5,000 |
| Total last week | 23,529 | 237 | 43,008 |
| Same week last year | 18,595 | 186 | 21,284 |
| Year ago this week | 21,956 | 373 | 30,792 |

Receipts for year to date, with comparisons, follow:

| | Cattle. | Hogs. | Sheep. | Cars. |
|----------|---------|-----------|---------|--------|
| 1904 | 620,695 | 1,825,840 | 876,341 | 60,650 |
| 1903 | 604,325 | 1,657,991 | 754,729 | 57,762 |
| Increase | 16,370 | 167,849 | 121,612 | 2,888 |

CATTLE.

| | |
|---|-------------|
| Choice to fancy heaves | \$5.70@6.00 |
| Good to choice heavy steers | 5.20@5.60 |
| Fair to good export and shipping steers | 4.60@5.15 |
| Medium beef steers | 3.85@4.50 |
| Inferior and plain steers | 3.40@3.90 |
| Good to fancy cows and heifers | 3.75@4.50 |
| Good to choice feeders | 3.50@4.40 |
| Poor to fair stockers and feeders | 2.25@3.40 |
| Fair to good cows and heifers | 3.10@3.60 |
| Good cutting and fair beef cows | 2.50@3.00 |
| Common to good canning cows | 1.50@2.40 |
| Bulls, poor to choice | 1.75@4.00 |
| Calves, good to fancy | 5.00@6.00 |
| Calves, common to fair | 2.75@4.75 |
| Corn-fed western steers | 4.10@5.50 |
| Texas bulls and thin steers | 2.25@3.70 |
| Fed Texas steers, fair to choice | 3.30@4.50 |

HOGS.

| | |
|-----------------------------------|--------------|
| Good to choice heavy shipping | \$5.70@5.82½ |
| Fair to good butcher weights | 5.55@5.80 |
| Fair to good heavy packing | 5.45@5.70 |
| Rough to choice heavy mixed | 5.40@5.75 |
| Assorted light, 150 to 185 lbs. | 5.30@5.60 |
| Fair to choice, light mixed | 5.35@5.65 |
| Poor to choice 60 to 125 lb. pigs | 4.50@5.10 |
| Stags and rough lots | 2.75@4.75 |

SHEEP.

| | |
|---------------------------------------|-------------|
| Fair to prime wethers | \$4.50@4.85 |
| Fair to good mixed lots | 3.85@4.50 |
| Fair to fancy western wethers | 4.40@4.85 |
| Fair to prime yearlings | 4.50@5.25 |
| Good to prime yearling feeders | 3.60@3.75 |
| Ewes, fair to fancy | 3.60@4.40 |
| Plain to good feeding stock | 3.10@3.65 |
| Culls and tail-end stock | 3.10@3.65 |
| Native lambs, poor to fair | 3.50@5.20 |
| Native lambs, good to fancy | 5.25@5.90 |
| Fat western and Mexican lambs | 5.25@5.90 |
| Western feeding lambs, poor to choice | 4.25@5.00 |

PROVISION LETTER.

(Special Letter to The National Provisioner from G. D. Forayth & Co.)

We quote the market as follows: Green hams, 10@12 ave., nominally 9½@9½; 12@14 ave., nominally 9½; 14@16 ave., nominally 9½; 18@20 ave., nominally 9½; green picnics, 5@6 ave., nominally 6¼; 6@8 ave., nominally 6½; 8@10 ave., nominally 6½; 10@12 ave., nominally 6½; green New York shoulders, 10@12 ave., nominally 6½; 12@14 ave., nominally 6½; green skinned hams, 18@20 ave., nominally 10½@10½; green clear bellies, 8@10 ave., nominally 10½; 10@12 ave., nominally 10; No. 1 S. P. hams, 8@10 ave., nominally 9½; 10@12 ave., nominally 9½; 12@14 ave., nominally 9½; 14@16 ave., nominally 9½; 16@18 ave., nominally 9½; 18@20 ave., nominally 9½; No. 2 S. H. hams, 10@12 ave., nominally 9½; 12@14 ave., nominally 9; 14@16 ave., nominally 9; No. 1 S. P. skinned hams, 16@18 ave., nominally 10½; 18@20 ave., nominally 10½; 20@22 ave., nominally 10½; 22@24 ave., nominally 10; 24@26 ave., nominally 9½;

MAY I WRITE TO YOU
and tell you about my Proposition?

MAX D. SLIMMER, Ph. D.

Packing House Chemistry,
405-406 Ellsworth Building,
Chicago, Ill.

Acts as Referee in all Commercial Transactions.

25@30 ave., nominally 9½; No. 1 S. P. picnics, 5@6 ave., nominally 6¼; 6@8 ave., nominally 6½; 7@9 ave., nominally 6¼; 8@10 ave., nominally 6¼; 10@12 ave., nominally 6½; No. 1 S. P. New York shoulders, 8@10 ave., nominally 6½; 10@12 ave., nominally 6½; S. P. clear bellies, 8@10 ave., nominally 10; 10@12 ave., nominally 9½; family back pork, 30@40 piece, \$14.50; do., 40@50 piece, \$14.75; do., 50@60 piece, \$15; Boston butt pork, \$13.50; ham butt pork, \$13; bean pork, \$11.50.

CHICAGO PROVISION MARKET

RANGE OF PRICES.

SATURDAY, MARCH 5, 1904.

| | Open. | High. | Low. | Close. |
|------------------------------------|-------|-------|-------|--------|
| LARD—(Per 100 lbs.)— | | | | |
| May | 7.32 | 7.40 | 7.30 | 7.37 |
| July | 7.50 | 7.55 | 7.45 | 7.52 |
| RIBS—(Boxed 25c. more than loose)— | | | | |
| May | 7.20 | 7.30 | 7.12 | 7.20 |
| July | 7.30 | 7.42 | 7.27 | 7.35 |
| PORK—(Per barrel)— | | | | |
| May | 14.05 | 14.20 | 13.95 | 14.05 |
| July | 14.22 | 14.30 | 14.10 | 14.25 |

MONDAY, MARCH 7, 1904.

| | | | | |
|------------------------------------|-------|-------|-------|-------|
| LARD—(Per 100 lbs.)— | | | | |
| May | 7.47 | 7.47 | 7.30 | 7.30 |
| July | 7.60 | 7.60 | 7.42 | 7.42 |
| RIBS—(Boxed 25c. more than loose)— | | | | |
| May | 7.35 | 7.37 | 7.17 | 7.17 |
| July | 7.45 | 7.47 | 7.30 | 7.32 |
| PORK—(Per barrel)— | | | | |
| May | 14.35 | 14.35 | 13.85 | 13.87 |
| July | 14.47 | 14.47 | 14.05 | 14.06 |

TUESDAY, MARCH 8, 1904.

| | | | | |
|------------------------------------|-------|-------|-------|-------|
| LARD—(Per 100 lbs.)— | | | | |
| May | 7.35 | 7.40 | 7.27½ | 7.32 |
| July | 7.45 | 7.55 | 7.42 | 7.47 |
| RIBS—(Boxed 25c. more than loose)— | | | | |
| May | 7.25 | 7.25 | 7.15 | 7.17 |
| July | 7.35 | 7.37 | 7.25 | 7.30 |
| PORK—(Per barrel)— | | | | |
| May | 13.95 | 14.12 | 13.77 | 13.87 |
| July | 14.10 | 14.32 | 13.97 | 14.10 |

WEDNESDAY, MARCH 9, 1904.

| | | | | |
|------------------------------------|-------|-------|-------|-------|
| LARD—(Per 100 lbs.)— | | | | |
| May | 7.37 | 7.37 | 7.25 | 7.30 |
| July | 7.50 | 7.50 | 7.40 | 7.45 |
| RIBS—(Boxed 25c. more than loose)— | | | | |
| May | 7.22 | 7.22 | 7.07 | 7.15 |
| July | 7.32 | 7.35 | 7.20 | 7.27 |
| PORK—(Per barrel)— | | | | |
| May | 13.92 | 13.95 | 13.67 | 13.77 |
| July | 14.15 | 14.15 | 13.90 | 14.00 |

THURSDAY, MARCH 10, 1904.

| | | | | |
|------------------------------------|-------|-------|-------|-------|
| LARD—(Per 100 lbs.)— | | | | |
| May | 7.27 | 7.32 | 7.15 | 7.32 |
| July | 7.40 | 7.47 | 7.27 | 7.47 |
| RIBS—(Boxed 25c. more than loose)— | | | | |
| May | 7.12 | 7.22 | 7.07 | 7.22 |
| July | 7.25 | 7.35 | 7.20 | 7.32 |
| PORK—(Per barrel)— | | | | |
| May | 13.65 | 13.90 | 13.55 | 13.87 |
| July | 13.92 | 14.12 | 13.77 | 14.10 |

FRIDAY, MARCH 11.

| | | | | |
|------------------------------------|-------|-------|-------|--------|
| PORK—(Per barrel)— | | | | |
| May | 13.57 | 14.00 | 13.80 | 13.97½ |
| July | 14.12 | 14.22 | 14.06 | 14.17 |
| LARD—(Per 100 lbs.)— | | | | |
| May | 7.32 | 7.35 | 7.27 | 7.30 |
| July | 7.47 | 7.50 | 7.42½ | 7.47 |
| RIBS—(Boxed 25c. more than loose)— | | | | |
| May | 7.22 | 7.25 | 7.15 | 7.25 |
| July | 7.35 | 7.37 | 7.27 | 7.37 |

MARKET PRICES.

CHICAGO.

FERTILIZERS.

| | |
|---------------------------------------|-------------|
| Dried blood, per unit..... | @ 2.50 |
| Hoof meal, per unit..... | @ 2.20 |
| Concent. tank, 15 to 18 per unit..... | @ 2.15 |
| Ground tank, 10 to 11 per unit..... | 2.25 @ 10c. |
| Unground tank, 10 to 11 per unit..... | 2.10 @ 10c. |
| Unground tank, 9 and 3/4, ton..... | 21.00 |
| Unground tank, 6 and 3/4, ton..... | 14.50 |
| Ground raw bone, per ton..... | 22.00 |
| Ground steam bone, per ton..... | 18.00 |

HORNS, HOOPS AND BONES.

| | |
|---|----------|
| Horns, No. 1, 65 to 70 lb., avg. ton..... | \$275.00 |
| Hoofs, black, per ton..... | 25.00 |
| Hoofs, striped, per ton..... | 28.00 |
| Hoofs, white, per ton..... | 45.00 |
| Round shin bones, 35 to 40 lb., avg. ton..... | 45.00 |
| Round shin bones, 50 to 55 lb., avg. ton..... | 40.00 |
| Long thigh bones, 90 to 95 lb., avg. ton..... | 35.00 |

LARDS.

| | |
|-------------------------|---------|
| Choice prime steam..... | @ 7.30 |
| Prime steam..... | @ 8 |
| Neutral..... | @ 8 |
| Compound..... | @ 6 1/4 |

STEARINES.

| | |
|----------------|---------------|
| Oleo..... | 7 @ 7 1/4 |
| Lard..... | @ 7 1/4 |
| Groase, W..... | @ 5 1/4 |
| Groase, B..... | @ 5 |
| Groase, Y..... | 4 1/4 @ 4 1/2 |

OILS.

| | |
|--|---------------|
| Lard Oil, extra winter strained ton..... | .63 |
| Lard Oil, extra, No. 1..... | .40 |
| Lard Oil, No. 1..... | .37 |
| Lard Oil, No. 2..... | .35 |
| Oleo Oil, extra..... | 8 1/4 @ 8 1/2 |
| Oleo Oil, No. 2..... | 7 1/4 @ 7 1/2 |
| Neatsfoot Oil, pure..... | @ 70 |
| Neatsfoot Oil, No. 1..... | @ 65 |

TALLOW.

| | |
|---------------------|---------------|
| Packers' prime..... | 5 1/4 @ 5 1/2 |
| No. 2..... | 4 1/4 @ 4 1/2 |
| Edible..... | 6 @ 6 1/2 |
| City renderers..... | 5 1/4 @ 5 1/2 |

GREASE.

| | |
|---------------|---------------|
| Brown..... | 4 @ 4 1/2 |
| Yellow..... | 4 1/4 @ 4 1/2 |
| White, A..... | 5 @ 5 1/4 |
| Bone..... | 4 1/4 @ 4 1/2 |

CURING MATERIALS.

| | |
|--|-----------------|
| Befined saltpetre..... | 4 1/4 @ 5 1/4 |
| Boracic acid, crystal to powdered..... | 10 1/4 @ 11 1/4 |
| Borax..... | 7 1/4 @ 8 |
| Sugar..... | |
| Pure, open kettle..... | 3 1/4 |
| White, clarified..... | 4 1/2 |
| Plantation, granulated..... | 4 1/4 |
| Yellow, clarified..... | 4 |
| Salt..... | |
| Ashton, in bags, 224 lb..... | \$2.40 |
| Eng. packing, in bags, 224 lb..... | 1.50 |
| Michigan, medium, car lots, per ton..... | \$3.00 @ 3.50 |
| Michigan, granulated, car lots, per ton..... | 2.65 |
| Casing salt, bbls., 280 lb., 2X and 3X..... | 1.10 |

COOPERAGE.

| | |
|--------------|-------------------|
| Tierces..... | \$1.37 1/4 @ 1.40 |
| Barrels..... | 1.07 1/4 @ 1.10 |

BUTCHERS' WHOLESALE PRICE LIST.

CORNER, BOILED AND ROAST BEEF.

| | |
|---------------------------------|-----------------|
| 1 lb., 2 doz. to case..... | Per doz. \$1.30 |
| 2 lb., 1 or 2 doz. to case..... | 2.40 |
| 4 lb., 1 doz. to case..... | 4.85 |
| 6 lb., 1 doz. to case..... | 8.00 |
| 8 lb., 1 doz. to case..... | 18.00 |

EXTRACT OF BEEF.

| | |
|----------------------------------|-----------------|
| 1 oz. jars 1 dozen in box..... | Per doz. \$2.25 |
| 2 oz. jars 1 dozen in box..... | 3.55 |
| 4 oz. jars 1 dozen in box..... | 6.50 |
| 8 oz. jars 1 dozen in box..... | 11.00 |
| 8 oz. jars 1/2 dozen in box..... | 22.00 |
| 2, 5 and 10 lb. tins..... | \$1.75 per lb. |

BARRELED BEEF AND PORK.

| | |
|---------------------------------|-------------|
| Extra plate beef..... | \$10.00 |
| Plate beef..... | 9.50 |
| Extra mess beef..... | 9.50 |
| Prime mess beef..... | 10.00 |
| Beef hams..... | Not Quoted. |
| Rump butts..... | 9.50 |
| Mess pork, repacked..... | 14.50 |
| Extra clear pork, Long Cut..... | 16.25 |

DRIED BEEF PACKED.

| | |
|-----------------|--------|
| Ham sets..... | 12 1/4 |
| Insides..... | 14 |
| Outsides..... | 11 1/4 |
| Knuckles..... | 13 |
| Reg. clogs..... | 10 |

SMOKED MEATS PACKED.

| | |
|----------------------|--------|
| A. C. Hams..... | 12 1/4 |
| Skinned Hams..... | 12 1/4 |
| Shoulders..... | 8 1/4 |
| Picnics..... | 16 1/4 |
| Breakfast Bacon..... | 16 1/4 |

LARD.

| | |
|---|--------------------------|
| Pure leaf, kettle rendered, per lb., tes..... | 9 1/4 |
| Lard substitute, tes..... | 7 1/4 |
| Lard compound..... | 7 1/4 |
| Barrels..... | 1 1/4c. over tes. |
| Half barrels..... | 1 1/4c. over tes. |
| Tubs, from 10 to 80 lb..... | 1 1/4c. to 1c. over tes. |

BUTTERINE.

F. O. B. CHICAGO.

| | |
|---------------------------|----------|
| No. 1, natural color..... | @ 10 |
| No. 2..... | @ 11 1/4 |
| No. 3..... | @ 12 |
| No. 4..... | @ 13 |
| No. 5..... | @ 14 |
| No. 6..... | @ 15 |

BOILED MEATS.

| | |
|---------------------------|--------|
| Hams, boneless..... | 16 1/4 |
| California, boneless..... | 10 1/4 |
| Roiled shoulders..... | 10 1/4 |

DRY SALT MEATS.

| | |
|-------------------------|----------------------|
| Rib bellies..... | 9 12 1/4 @ 10.12 1/4 |
| Short clears..... | |
| Plates, regular..... | 7.00 @ 7.75 |
| American shoulders..... | |

SAUSAGE CASINGS.

| | |
|---------------------------------------|----|
| Beef round, set of 100 ft..... | 12 |
| Beef middles, set of 57 ft..... | 35 |
| Beef bungs, each..... | 7 |
| Hog casings, per lb free of salt..... | |
| " " medium, each..... | |
| " " small, each..... | |
| Sheep casings, per bundle..... | |

SAUSAGES.

| | |
|-----------------------------------|-------|
| Summer, H. C..... | 16 |
| German Salsami..... | 13 |
| Holsteiner..... | 11 |
| D'Arles H. C..... | 18 |
| Italian Salsami..... | 18 |
| Cervelat..... | 1 |
| Bologna..... | 5 1/4 |
| Frankfurts..... | 6 1/4 |
| Blood, Liver and Head Cheese..... | 6 1/4 |
| Tongue..... | 6 |
| Special Compressed Ham..... | 8 |
| Berliner Ham..... | 8 |
| Polish..... | 7 |
| Vend Ham..... | 7 |
| Pork Sausage..... | 7 @ 8 |

VINEGAR PICKLE—COOKED MEATS.

| | |
|-----------------------------------|--------|
| Pig's Feet, 1/4 bbl., 80 lb..... | \$3.00 |
| Snouts, 1/4 bbl., 80 lb..... | 5.80 |
| Or Hears, 1/4 bbl., 80 lb..... | 5.80 |
| Plain Tripe, 1/4 bbl., 80 lb..... | 2.40 |
| H. C. Tripe, 1/4 bbl., 80 lb..... | 4.50 |

DRESSED BEEF.

| | Carcass. | Foras. | Hinds |
|----------------------|---------------|--------|-------|
| Fair Cows..... | 5 1/4 | 5 | 7 1/4 |
| Good Young Cows..... | 7 | 5 1/4 | 8 1/4 |
| Native Heifers..... | 7 1/4 @ 8 | 6 | 9 1/4 |
| Texas Steers..... | 7 @ 7 1/4 | 6 1/4 | 9 1/4 |
| Western Steers..... | 7 1/4 @ 8 | 6 1/4 | 10 |
| Native Steers..... | 7 1/4 @ 8 1/4 | 6 1/4 | 11 |

BEEF CUTS.

| | No. 1. | No. 2. | No. |
|-------------------------------|---------|--------|--------|
| Loins..... | 15 @ 16 | 12 1/4 | 9 |
| Short Loins..... | 20 | 18 | 12 |
| Ribs..... | 14 | 12 1/4 | 6 1/4 |
| Tenderloins..... | | | 16 |
| Chucks..... | 6 | 5 1/4 | 4 1/4 |
| Plates..... | 4 1/4 | 4 1/4 | 3 1/4 |
| Rounds..... | 8 | 7 | 8 |
| Rolls, boneless..... | | | 9 @ 10 |
| Shoulder Clods, boneless..... | | | 6 @ 7 |
| Rump Butts, boneless..... | | | 6 1/4 |
| Chucks, boneless..... | | | 4 1/4 |
| Strip Loins..... | | | 6 1/4 |
| Beef Ham Sets..... | | | 8 |

BEEF SUNDRIES.

| | |
|--------------------------|--------|
| Cheek meat..... | 4 |
| Hanging Tenders..... | 6 1/4 |
| Flank Steak..... | 7 @ 9 |
| Trimnings..... | 4 |
| Shanks..... | 3 1/4 |
| Flanks (rough)..... | 5 |
| Brains..... | 4 |
| Kidneys..... | 4 |
| Beef Suet..... | 5 |
| Sweetbreads..... | 25 |
| Oxtails..... | 3 1/4 |
| Livers..... | 3 |
| Hearts..... | 3 |
| Tongues..... | 11 1/4 |
| Clean Tripe (reg.)..... | 3 1/4 |
| Clean Tripe (H. C.)..... | 4 |

CALVES.

| | |
|------------------|--------|
| Carcass..... | 7 @ 10 |
| Foras..... | 5 @ 8 |
| Hinds..... | 9 @ 12 |
| Sweetbreads..... | 45c. |
| Livers..... | 30c. |

MUTTON.

| | |
|--------------------------|-----------------|
| Lambs (carcass)..... | 11 1/4 @ 12 1/4 |
| Ewes (carcass)..... | 7 @ 8 |
| Yearlings (carcass)..... | 9 @ 10 |
| Wethers (carcass)..... | 8 @ 9 |
| Mutton (racks)..... | 6 @ 7 |
| Mutton, legs..... | @ 11 |
| Mutton, breasts..... | @ 5 1/4 |
| Mutton, stews..... | @ 5 1/4 |
| Lamb (racks)..... | 9 @ 10 |
| Lamb, loins..... | @ 16 |
| Lamb, saddles..... | @ 16 |
| Lamb, legs..... | @ 16 |
| Lamb, tongues..... | 12c. per lb. |
| Lamb, fries..... | 5c. pair |

PORK.

| | |
|---------------------------|-------|
| Dressed Hogs..... | 7 1/4 |
| Tenderloins..... | 17 |
| Pork Loins..... | 8 1/4 |
| Spare Ribs..... | 6 1/4 |
| Butts..... | 6 1/4 |
| Shoulders..... | 6 1/4 |
| Shoulders (skinned)..... | 6 1/4 |
| Trimnings..... | 5 |
| Pigs' Tails..... | 3 1/4 |
| Hearts (per pound)..... | 2 |
| Leaf Lard..... | 7 1/4 |
| Heads (rough)..... | 3 1/4 |
| Heads (cleaned)..... | 3 1/4 |
| Hocks..... | 4 1/4 |
| Cheek Meat..... | 3 1/4 |
| Neck Bones..... | 1 1/4 |
| Backfat..... | 7 |
| Plux (per lb)..... | 8 |
| Kidneys (per lb)..... | 2 1/4 |
| Pigs' Feet (rough)..... | 2 |
| Pigs' Feet (cleaned)..... | 2 1/4 |
| Brains (per lb)..... | 3 |
| Snouts and Ears..... | 3 |
| Tongues..... | 9 1/4 |

BUTCHERS' OFFAL.

| | |
|----------------------------|---------------|
| Tallow..... | 4c. |
| Mixed Bone and Tallow..... | 2 1/4 per lb. |
| Calfskins, 8 to 15 lb..... | 4 1/4 @ 11 |
| Calfskins, under 8 lb..... | 6c. each |

FERTILIZER MARKETS.

| BASIS, NEW YORK DELIVERY. | | |
|---|---------|------------|
| Bone meal, steamed, per ton..... | \$23.00 | @23.00 |
| Bone meal, raw, per ton..... | 25.00 | @25.00 |
| Nitrate of soda—future..... | 2.05 | @ 2.07½ |
| Nitrate of soda—spot..... | 2.15 | @ 2.25 |
| Bone black, spot, per ton..... | 13.50 | ch. oD***½ |
| Dried blood, N. Y., 12-13 per cent. ammonia..... | 2.55 | @ 2.80 |
| Dried blood, West, high grade, fine ground, c. f., N. Y..... | 2.55 | @ 2.80 |
| Tankage, 9 and 20 p. c., f. o. b. Chicago..... | 22.00 | @23.00 |
| Tankage, 8 and 20 p. c., f. o. b., Chicago..... | 15.00 | @19.00 |
| Tankage, 7 and 30 p. c., f. o. b. Chicago..... | 15.00 | @16.00 |
| Tankage, 6 and 35 p. c., f. o. b. Chicago..... | 15.00 | @16.00 |
| Garbage tankage, f. o. b. New York..... | 5.00 | @ 9.00 |
| Fish scrap, dried, 11 p. c. ammonia and 15 p. c. bone phosphate..... | 29.00 | @30.00 |
| Wet, acidulated, 6 p. c. ammonia, per ton..... | 14.00 | @15.00 |
| Asotone, per unit, del. New York..... | 2.60 | @ 2.65 |
| Sulphate ammonia gas, for shipment, per 100 lbs..... | 3.20 | @ 3.25 |
| Sulphate ammonia gas, per 100 lbs., spot..... | 3.10 | @ 3.20 |
| Sulphate ammonia base, per 100 lbs..... | 3.10 | @ 3.15 |
| So. Carolina phosphate rock, ground, per 2,000 lbs., f. o. b. Charleston..... | 6.50 | @ 7.75 |
| So. Carolina phosphate rock, undried, f. o. b. Ashley River, per 2,400 lbs..... | 3.50 | @ 3.75 |
| The same, dried..... | 3.75 | @ 4.00 |
| POTASHES, ACCORDING TO QUANTITY. | | |
| Kainit, shipment, per 2,400 lbs..... | \$5.95 | @ 9.50 |
| Kainit, ex-store, in bulk..... | 9.90 | @10.00 |
| Kieserit, future shipment..... | 7.00 | @ 7.25 |
| Muriate potash, 80 p. c., ex-store..... | 1.85 | @ 1.95 |
| Muriate potash, 80 p. c., future shipment..... | 1.80 | @ 1.90 |
| Double manure salt (46@40 p. c., less than 2½ p. c. chloride), to arrive, per lb. (basis 46 p. c.)..... | 1.09 | @ 1.13 |
| Sulphate potash, to arrive (basis 90 p. c.)..... | 2.08 | @ 2.20 |
| Sylvinit, 24 to 30 p. c., per unit, S. P..... | .30 | @ .40 |

OCEAN FREIGHT.

| | Liverpool. | Glasgow. | Hamburg. |
|-----------------------|------------|----------|----------|
| | Per Ton. | Per Ton. | Per 100. |
| Canned meats..... | 7/6 | 12/6 | 15c |
| Oil cake..... | 6/8 | 5/ | 15c |
| Bacon..... | 7/6 | 12/6 | 16c |
| Lard, tierces..... | 7/6 | 12/6 | 16c |
| Cheese..... | 30/ | 25/ | 2 M |
| Butter..... | 25/ | 30/ | 2 M |
| Tallow..... | 7/6 | 15/ | 16c |
| Beef, per tierce..... | 1/6 | 2/6 | 16c |
| Pork, per bbl..... | 1/3 | 2/0 | 16c |

EXPORTS OF PROVISIONS

Exports of hog products from Atlantic ports for week ending March 5, with comparative tables:

PORK, BARRELS.

| | Week Mar. 5, 1904. | Week Mar. 6, 1904. | Nov. 1, 1903, to Mar. 5, 1904. |
|----------------------|--------------------|--------------------|--------------------------------|
| United Kingdom..... | 1,579 | 390 | 17,577 |
| Continent..... | 376 | 819 | 7,086 |
| So. and Cen. Am..... | 803 | 60 | 8,054 |
| West Indies..... | 2,486 | 747 | 23,272 |
| Br. No. Am. Col..... | ..... | 177 | 3,966 |
| Other countries..... | 10 | 3 | 1,428 |
| Totals..... | 5,514 | 2,206 | 61,483 |

BACON AND HAM, POUNDS.

| | United Kingdom..... | Continent..... | So. and Cen. Am..... | West Indies..... | Br. No. Am. Col..... | Other countries..... |
|-------------|---------------------|----------------|----------------------|------------------|----------------------|----------------------|
| | 10,655,886 | 1,440,000 | 157,475 | 301,025 | ..... | 14,175 |
| Totals..... | 12,468,561 | 10,517,687 | 227,379,423 | | | |

LARD, POUNDS.

| | United Kingdom..... | Continent..... | So. and Cen. Am..... | West Indies..... | Br. No. Am. Col..... | Other countries..... |
|-------------|---------------------|----------------|----------------------|------------------|----------------------|----------------------|
| | 4,596,293 | 7,677,154 | 224,450 | 464,540 | ..... | 66,270 |
| Totals..... | 13,028,709 | 13,678,510 | 242,411,478 | | | |

RECAPITULATION OF WEEK'S EXPORTS.

| | Pork, bbls. | Bacon and Ham, lbs. | Lard, lbs. |
|---------------------|-------------|---------------------|------------|
| New York..... | 3,690 | 4,254,175 | 4,897,010 |
| Boston..... | 466 | 2,730,525 | 1,034,910 |
| Portland, Me..... | ..... | 101,325 | ..... |
| Philadelphia..... | 207 | 1,017,750 | 2,187,863 |
| Baltimore..... | 1,087 | 3,128,011 | 4,485,236 |
| New Orleans..... | 65 | 9,850 | 37,900 |
| St. John, N. B..... | ..... | 1,226,025 | 385,760 |
| Totals..... | 5,514 | 12,468,561 | 13,028,709 |

COMPARATIVE SUMMARY.

| | Nov. 1, 1903, to March 6, 1904. | Nov. 1, 1903, to March 7, 1904. | Increase. |
|-----------------------|---------------------------------|---------------------------------|-----------|
| Pork, pounds..... | 12,296,600 | 11,052,409 | 1,244,300 |
| Bacon & ham, lbs..... | 223,379,423 | 229,089,519 | 5,710,096 |
| Lard, pounds..... | 242,411,478 | 235,704,656 | 6,706,822 |

FRIDAY'S CLOSINGS.

Provisions.

As wheat and corn advanced at the opening on the smaller reserves of them in farmers' hands as shown by the government report than had been expected, there were little firmer hog products markets then, although the influence was in part offset by increased receipts of hogs and 10c. lower prices for them. Afterwards there was some easing of prices all around, and hog products were soon 5 points lower than last night, followed by frequent fluctuations.

Cottonseed Oil.

The market has hardly varied in features from the weekly review in another column. Sales in New York of 1,600 bbls. prime yellow, July delivery, at 39¼@39½c.

Tallow.

The sudden break of ¼c. in the New York market to 5c. for city, hhds., at which sales of 500 hhds. were made, as noted in our weekly review upon another page of this issue, leaves the market fairly steady at 5c. The weekly contract deliveries of city hhds. were made at 5c. The western markets are weak; Chicago quotes nominally 5¼c. for packers and 5½c. for city renderers. This is a loss of ¼c. all around in the tallow markets over the country from the late outside prices.

Oleo Stearine.

Nominally 7¼c. in New York.

OLEO AND NEUTRAL LARD.

There was no oleo business at all last week and practically none this week; the market has been exceedingly dull and tending toward lower prices. The causes for this weakness are, in the first place, the decline in lard, which is a cent a pound in the last two weeks, and, next to that, the fact that the churners bought oil liberally during February and are not in need of any now. When the oil business gets in running order again it will probably be at considerable reduction in price.

Neutral lard business is extremely quiet, and the price of this article practically the same as that of choice oleo oil.

The situation for fine quality butter oil continues extremely strong.

ROTTERDAM.

ROTTERDAM, Feb. 27.—The oleo oil market is firm. Total sales about 2,697 tcs. American oleo and stock, against about 4,091 tcs. during the same period in 1903, and against about 5,804 tcs. last week. Total arrivals, 1,015 tcs. Total arrivals from America this year, 27,706 tcs; same period in 1903, 17,715 tcs. Present stocks of American oleo and stock are about 5,642 tcs., against about 3,644 tcs. at same time last year. Imports of margarine (butterine) in England, amounted last year, in the week ending February 13th, to 18,799 cwt., against 18,138 cwt. during about the same period in 1903.

Neutral lard is firm, strictly choice brands offering on shipment at 53¼@52 florins and B fat neutral lard at 50½@50 florins.

Cottonseed oil is firm, but very little doing. Strictly choice butter oil is offering at 32¼@31 florins. Prime Summer Yellow at 31¼@31 florins. Arrivals of American cotton oil during the week amount to about 6,000 barrels.

STOCKS OF PROVISIONS.

Following is a report of the stocks of provisions on hand in St. Joseph at close of business February 29, 1904, as reported to the "Stock Yards Daily Journal":

Feb. 29, '04. Feb. 28, '03.

| | | |
|--|------------|------------|
| Mess pork (new) made since Oct. 1, 1903, bbls..... | 317 | ..... |
| Mess pork (old) made before Oct. 1, '03, bbls..... | ..... | ..... |
| Irregular mess pork, bbls..... | ..... | ..... |
| Other kinds of barreled pork, bbls..... | 1,185 | 2,168 |
| P. S. lard in storage tanks and tierces, made since Oct. 1, 1903, tcs..... | 5,943 | 1,704 |
| P. S. lard made previous to Oct. 1, 1903, tcs..... | ..... | ..... |
| Other kind of lard, tcs..... | 303 | 990 |
| Short rib middles and rough or back bone—Short rib middles made since Oct. 1, 1903, lbs..... | 2,687,766 | 2,402,344 |
| Short rib middles and rough or back bone—Short rib middles made previous to Oct. 1, 1903, lbs..... | 85,052 | ..... |
| Short clear middles, lbs..... | 520,905 | 1,100,767 |
| Extra short clear middles made since Oct. 1, '03, lbs..... | 2,483,533 | 2,122,102 |
| Extra short clear middles made previous to Oct. 1, 1903, lbs..... | ..... | ..... |
| Extra short rib middles, lbs..... | 1,038,942 | 2,221,135 |
| Long clear middles, lbs..... | 154,820 | ..... |
| Dry salt shoulders, lbs..... | 548,564 | 416,449 |
| Sweet pickled hams, lbs..... | 6,665,538 | 7,792,881 |
| Sweet pickled shoulders, lbs..... | 153,545 | 1,048,307 |
| Dry salted bellies, lbs..... | 2,091,477 | 1,822,647 |
| Sweet pickled bellies, lbs..... | 3,120,575 | 2,649,253 |
| Sweet pickled California or picnic hams, lbs..... | 617,300 | 2,239,721 |
| Sweet pickled Boston shoulders, lbs..... | 496,600 | 1,119,010 |
| Sweet pickled skinned hams, lbs..... | 2,158,555 | 2,670,073 |
| Other cuts of meats, lbs..... | 2,441,133 | 3,706,746 |
| Total weight cut meats..... | 25,269,305 | 31,311,435 |

CHEMICALS AND SOAPMAKERS' SUPPLIES.

| | |
|---|--|
| 74% Caustic Soda at \$1.80 to \$1.85 for 60%. | |
| 70% Caustic Soda at \$1.85 to \$1.90 for 60%. | |
| 60% Caustic Soda at 2c. per lb. | |
| 98% Powdered Caustic Soda at 3c. per lb. | |
| 59% Pure Alkali at 90c. to \$1 for %. | |
| 45% Carbonate Soda Ash at \$1.10 per 100 lbs. | |
| Borax at 8c. per lb. | |
| Talc at 2¼c. per lb. | |
| Palm Oil in casks 6¼c. lb., in barrels 6½c. lb. | |
| Green Olive Oil at 57c. to 58c. per gal. | |
| Yellow Olive Oil at 54c. per gal. | |
| Green Olive Oil Foots at 5¼c. lb. | |
| Cochin Coconut Oil 7¼c. to 7½c. lb. | |
| Ceylon Coconut Oil 6½c. to 7c. lb. | |
| Cottonseed Oil at 40c. to 41c. per gal. | |
| Rosin: M., \$4; N., \$4.25; WG., \$4.50; WW., \$4.75 per 280 lbs. | |

A GREAT PACKING CENTRE.

Stockyards reports continue to indicate the immensity of Chicago's livestock business. For the first two months of this year there were received at the Chicago yards 55,563 cars of stock. This was 4,753 cars more than last year, and 12,521 more than for the same period of 1899, showing an average increase of more than 2,500 cars each year. Consignments direct to packers alone for the two months amounted to 2,200 carloads. It is estimated that the first three months of the present year will break all quarterly records by a wide margin.

RETAIL DEPARTMENT

QUALITIES IN CLERKS.

At a recent meeting of dealers in Providence, R. I., the question of clerks and their qualifications was the subject of discussion. The consensus of opinion among those assembled, says the *Grocer's Advocate*, was that the American boys did not, as a rule, come up to requirements; that they were altogether "too independent" and self-indulgent to make successful or even satisfactory grocery clerks; that their ideas were more in line with "something better," and whenever they entered the dealer's employ it was usually for a temporary period, or until something more lucrative turned up; that very few of them ever remained sufficiently long to become really useful, and that not one in a dozen ever learned the business—hence they were not satisfactory and grocers hesitated to employ them.

On the other hand it was found that the "greenhorn," or the young man of foreign birth, just arriving in the country, made the model clerk. They were uncontaminated with the fallacies of American life to which so many native boys become subject, and were anxious to go to work at something; it matters little what it is so long as a bare living can be earned, for they desire first of all to

learn the language and the ways of the people. In order to do this they will work hard and faithfully; and when it has been acquired they are then contended to remain where they are, for their usefulness has been appreciated by the grocer, who does not hesitate to increase their salary. Many thus remain, and later on they will be found in business for themselves, and are usually successful.

"During the past three years we have taken on no less than ten of these so-called 'greenhorns,' or boys of foreign birth," said a Sixth avenue, New York, dealer, "and all save one are with us at this time, and he left to go West. They are satisfactory in every way, hard workers, and faithful. Our American boys are too high-toned for this business, but I venture to say that it would be better for many of them if they would emulate the self-sacrifice and zeal of these foreign-born young men."

SUNDAY CLOSING AT FLUSHING.

As a result of agitation on the part of the Retail Butchers' Association the police of Flushing, L. I., will enforce the Sunday closing law strictly as regards butcher shops. The order goes into effect to-morrow.

LOCAL AND PERSONAL

Will Ling will open a market at Ellensburg, N. Y.

O. A. Bernhart will open a market at Hamburg, Pa.

Homer L. Brown has reopened his market at Norwich, N. Y.

David Atkinson has bought the Gem market at Delphi, Ind.

George Middleton will open a new shop on Loudon street, Urbana, O.

Jensen's market at Fall River, Wis., was destroyed by fire last week.

Rickborn & Meyer have opened a market at Wappinger's Falls, N. Y.

Charles M. Duggan has bought the market of John Thompson at Lima, O.

W. J. Marshall will open a meat market at 458 Main street, Poughkeepsie, N. Y.

Emmet Denison has erected a new building for his market at Brookfield, N. Y.

L. O. Cairnes, of Rice, Minn., will open an independent market in West Duluth, Minn.



MODEL RETAIL MARKETS.— Louis Meinecke, St. Louis, Mo.

The illustration herewith gives an idea of how a model meat market can be arranged. It shows the market of Louis Meinecke, St. Louis, Mo. The fixtures are massive, and of oak, quarter-sawn. The panels in fixtures and the entire side walls of the market are of beautifully colored tile, with embossed art panels in the centers. The nickel-plated racks are treated in an artistic manner, forming a part of the general fixture plan. Fish boxes, poultry boxes, etc., are all designed with a view to convenience.

The entire market was designed and executed by the Brecht Butchers' Supply Co., whose main office and factory is in St. Louis, and whose New York City branch is at No. 102 Pearl street.

P. J. Molyneux has opened a new market in the Kirkpatrick Building, Butler, Pa.

Moody & Simmons have established a prosperous meat business in their new enterprise at Tampa, Fla.

The Armour Company will establish a depot at Goshen, N. Y., to supply dealers in the surrounding territory.

Charles Lubsen will reopen the market on Twenty-second street, Flushing, L. I., formerly kept by Nichols Bros.

Martin & Burdick, Clinton, N. Y., have closed their market because the owner of the building refused to build them a cooler.

W. A. Joiner has bought the interest of M. L. Brainard in their market at Attica, N. Y., and will conduct the business alone.

Dealers at Loveland, Colo., are facing an ice famine, owing to the warm winter, and there is talk of the erection of a big artificial ice plant.

The Retail Dealers' Association of Milwaukee has endorsed the credit reform movement which is in progress in that city, inaugurated for the purpose of getting rid of "dead beats."

The common council at Asbury Park, N. J., has voted to exact from trading stamp concerns a license fee of \$200 a year. The trades people opposed and the Merchants' Association favored the ordinance.

The refusal of the master butchers of Oakland, Calif., to sign a new wage and hour scale resulted in a strike of the journeymen butchers and the locking out of 200 members of the union by the proprietors. The fight is on the recognition of the union.

The Grand Rapids Meat Dealers' Association will affiliate with the Master Butchers of America. The Grand Rapids association has elected the following officers for the year: President, W. J. King; vice-president, Arthur Watkins; secretary, J. H. Bowditch; treasurer, G. Waltz; sergeant-at-arms, Leon Cintilli; executive committee, John Rauser, August Schuchardt, R. K. Finch.

CLEANING OILY BOTTLES.

The best thing to use to clean out oily bottles is benzoline, only it is rather inflammable, and, therefore, care has to be taken in using it. It seems doubtful in some cases whether the bottles are really worth the trouble and cost of cleaning out. Next to benzoline the bottles may be boiled in a weak solution of caustic soda, rinsing them out afterwards with clean water.

ointment FOR HORSE'S HOOF.

The mistaken idea is current that an application of some kind of a fat to the hoofs of horses prevents the hoofs from splitting, by being absorbed by the horny substance. This is, however, not quite the absolute fact. It is not the fat itself which renders the hoof elastic, but the property of the fat in preventing water being absorbed by the hoof material. Vaseline and lanolin are the best fats to use for this purpose, although any other non-rancid fat may be used for the purpose. An application of a little of the fat every two weeks will keep the hoofs in good condition and the horse healthy in this respect.

A WHITEWASH RECIPE.

A good and desirable whitewash is made as follows: Take one-half bushel of freshly burnt lime, slake it with boiling water, cover it during the process, to keep in the steam. Strain the liquid through a fine sieve, and add to it 7 lbs. of salt previously well dissolved in warm water; 3 lbs. of ground rice boiled to a thin paste and stirred in boiling hot; one-half pound of powdered Spanish whiting, 1 lb. of clean glue, which has been previously dissolved by soaking it well, and then hanging it over a slow fire in a small kettle, within a large one filled with water. Add 5 gallons of hot water to the mixture, stir it well, and let it stand a few days covered from dirt. It must be put on quite hot. For this purpose it can be kept in a kettle on a portable furnace. About one pint of this mixture will cover one square yard.

TINNING MEAT-HOOKS.

It is an unavoidable fact that articles of iron, such as meat hooks, etc., become unsightly in the butcher shop from exposure to dampness. It is, therefore, desirable to remedy this fault without injury to the meat. Tinning the hooks is probably the most economic and least objectionable method of keeping them bright and shining at all times. Very little expenditure for material is attached to the process, which is carried out as follows: Cleanse the iron by pickling in dilute sulphuric acid (1 to 20 of water) and scour with sand if necessary. Then boil them in concentrated aqueous solution of stannate of soda, with a quantity of granulated tin. Wash immediately in hot water. The tinning solution can be used over and over again by simply adding a sufficient amount of the stannate of soda to preserve the original strength of the solution.

WINDOW CLEANING.

In washing windows a narrow-bladed wooden knife, sharply pointed, will take out the dust that accumulates in the corners of the sash. Dry whiting will polish the glass, which should first be washed with water mixed with a little wood alcohol. Paint and superfluous putty may be removed by first putting some saleratus into hot water to make a strong solution and saturating with this the paint which adheres to the glass. Let it remain until nearly dry, then rub it off with a woolen cloth. Putty may also be removed by the careful application of a hot iron and scraping it off afterwards. Calced magnesia moistened with gasoline—or better, benzine—applied to the glass with a

soft rag is another excellent window polisher. Care must, however, be exercised with this polish by reason of its highly inflammable nature. It must be kept in a glass stoppered bottle, and removed from fire or any other source of heat.

TO MARKET LIVE FISH.

A novel apparatus for the carriage of live fish has been invented by Dr. N. von Lorens, of Marienbrun, Austria, which is called the hydrobion. The device is based upon the injection of oxygen into the water contained in tanks during the transportation. The oxygen injector is placed at the bottom of the transportation tank, which is filled with water and fish. This oxygen injector is composed of a steel cylinder containing compressed oxygen gas. When the cock, which is a horizontal disk provided with apertures, is opened, the oxygen is allowed to escape through a reduction valve. The oxygen then passes through a regulating valve attached to the reduction valve, and thence through a rubber tube into the oxygen distributor. This latter is composed of a diaphragm of inorganic material stretched across a porous cylindrical tube.

The gas, after coming into this tube or distributor, is immediately diffused and bubbles up through the water containing the fish. These bubbles ascend very slowly toward the surface and become dissolved therein to an extent that depends largely upon their ascensional velocity and the degree of gaseous saturation in the water. The non-utilized excess escapes at the surface. This solution of oxygen in the water, which is obtained with a minimum consumption of gas, is what keeps the fish alive, and is constantly being renewed as it is consumed by the latter.

The practical manipulation of the hydrogen is so simple that it can be entrusted to any person of ordinary intelligence. All that has to be done by the person in charge is to turn on the cock and take the apparatus by its two handles and place it at the bottom of the tank containing the fish. It is, of course, necessary to regulate the device according to the amount of water in the tank and the number of fish contained therein, and according to the amount of oxygen consumed by the various kinds of fish. Finally, it is necessary also to regulate the capacity of oxygen according to the time to be consumed in the transportation. The inventor has calculated all such data for most varieties of fish, which in all likelihood may be transported, so that the person employing the apparatus has only to follow once for all the indications determined by the inventor.

EUROPEAN HOTEL.....

.....250 ROOMS, \$1.00 AND UP

Absolutely Fire-proof
Kaisershof

ROESSLER & TEICH, Managers

270 South Clark Street, near Jackson Boulevard, Chicago
Half block from New Lake Shore Depot, Post-office and Board of Trade

UNIQUE GERMAN RESTAURANT

Just finished at a cost of \$50,000

